# The Journal
OF THE
# Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

VOL. XIX. MARCH. 1915. No. 3.

## BOARD OF MANAGEMENT.

The usual monthly Meeting of the Board of Management of the Jamaica Agricultural Society was held at the Office of the Society, 11 North Parade, Kingston, on Thursday, the 18th February, 1915, at 11.40 a.m. Present: His Excellency Sir Wm. H. Manning, K.C.M.G., C.B. (presiding), Sir Jno. Pringle, K.C.M.G., Hons. L. J. Bertram, C.M.G., D. Campbell, Geo. McGrath, R. P. Simmonds; P. C. Cork. C.M.G., and S. S. Stedman; Messrs. R. Craig, H. Q. Levy, A. W. Douet, A. C. L. Martin, Conrad Watson and the Secretary, Jno. Barclay.

*Apologies for Absence.*—Apologies for absence were submitted from Hon. J. R. Williams, Messrs. E. W. Muirhead, Adam Roxburgh and Archd. Spooner.

The Minutes of the previous Meeting having been printed an circulated were taken as read and confirmed.

Matters arising out of the Minutes:—

(*a*) *Shipments of War Gifts—Acknowledgments, etc.*—The Secretary submitted the following letters from the C.S.O.:—

No. 1219-1151. 29th January, 1915.

"With reference to previous correspondence ending with the letter from this Office, No. 163/19885/14, dated the 6th instant, I am directed by the Governor to transmit for the information of the Jamaica Agricultural Society the accompanying copy of a letter from the Crown Agents for the Colonies with reference to the 964 packages of fruit shipped on the s.s. "Aracataca" for the use of the wounded soldiers."

(Sgd.) ROBT. JOHNSTONE,
Acting Colonial Secretary.

2—S.—Jamaica.

Whitehall Gardens,
London, S. W.
2nd January, 1915

Sir,

I have the honour to acknowledge the receipt of your letter of 8th December, No. 16031,18112, enclosing a Bill of Lading for 964 packages of fruit per "Aracataca" being the second consignment for the use of the wounded soldiers.

2. The West India Committee inform us that 953 packages were received consisting of:—

213Boxes Grape Fruit.
709 Boxes Oranges.
30 Barrels Mixed Fruits.
1 Box Ginger Sugar.

and Messrs. Elders and Fyffes advise that 12 Boxes were washed overboard.

3. All the fruit was received in good condition with the exception of 44 boxes of Oranges which were in bad condition.

I have etc.,

(Sgd.) R. L. ANTROBUS.

The Hon'ble
The Colonial Secretary,
Jamaica.

No. 1781-2227. 11th February, 1915.

"I am directed by the Governor to acknowlegge the receipt of your letter, No. 6975, dated the 9th instant, reporting the shipment on the s.s. "Chagres" of a further

consignment of fruit, etc., given by members of the Jamaica Agricultural Society, for the use of wounded soldiers in the various military Hospitals in the United Kingdom.

2. I am to say that His Excellency desires to express to the generous donors of this fruit and preserves his sincere appreciation of their kind and thoughtful action, and to add that these gifts, as has already been intimated, are a great boon to the wounded and sick soldiers.

(Sgd.) ROBT. JOHNSTONE,
Actg. Colonial Secre.

The Secretary said he had received acknowledgments through the Secretary of the West India Committee, of the War Gifts sent to the various Military Hospitals in the United Kingdom. He had selected some of these—from the very South of England to Dingwall in the North of Scotland and from Wales to the middle of Ireland—to show the scope of the distribution of the gifts. The acknowledgments but two spoke of the fruit being in "excellent," "fine" condition, and so on. The report from Dingwall mentioned that the fruit had been touched with frost *en route* there. He thought it noteworthy that out of the 964 packages of Grapefruit and Oranges sent on deck of the Elders & Fyffes steamer "Aracataca" to Bristol, 896 packages had arrived so well, when so often fruit shipped in cold storage to London had been reported on by agents as having a good proportion wasty, and so on.

The President said that those who had contributed these gifts might be informed of the acknowledgments.

Mr. Douet suggested that the principal acknowledgments should be published in the next issue of the JOURNAL, if necessary in place of some of the Branch Notes.

This was agreed to.

(*b*) *Report of Committee on Crown Lands.*—The Secretary read the Report of the Special Committee on Crown Lands as follows:—

The Special Committee on Crown Lands met on Wednesday, 17th inst., at the Agricultural Society's office at 3.15 p.m. Present: The Hons. R. P. Simmonds and S. S. Stedman, Messrs. R. Craig, A. C. L. Martin and the Secretary, and considered the rough draft of the suggested revision of the rules as to the sale of lands by the Government of Jamaica to settlers, as proposed by the Committee at their meeting held on January last, and which had been circulated to the Committee for their further observation. "Your Committee beg to report to the Board of Management as follows:—

"1. They apprehend that the Rules are not intended to apply only to purchasers of 5 to 10 acres but are applicable to a class of small free holders who are in a position to buy up to the maximum of 300 acres.

"2. They are of opinion that the Crown Lands should not be exposed for sale until roads are surveyed and opened up and the land surveyed in blocks of varying size according to the nature of the land.

"3. As regards the Rules for the sale of these lands they consider that under Rule 1 the minimum number of acres should be 5 and the maximum 300 acres.

"The last paragraph of Rule 2 should be struck out and the following added:—

"The value of every lot of land to be sold shall be fixed by the Surveyor General in consulation with local proprietors who might be asked by the Government to render him assistance in this respect."

"Rule 3 should be struck out and the following substituted—

"Each applicant for the purchase of lands must submit a recommendation from a person of good standing to whom he is personally known."

"Rule 4 should be struck out.

"Rule 5 should stand.

"Rule 6 should be struck out.

"Rule 7 should be struck out.

"Rule 8 should stand.

"Under Rule 9 dealing with the term of the certificate of sale, clause 1 might read:—

"The purchase money and the cost of survey together amounting to £ are payable in 5 years, by five equal instalments, the first of which shall be payable on

obtaining possession of the land, and the subsequent at intervals of one year thereafter: Provided that the purchaser shall erect and maintain in good order on the land a suitable dwelling house within two years after obtaining possession.

Clause 2. As it stands.

Clause 3. Strike out the words: "Subject to a discount of 3 per cent; balance of clause to stand.

Clause 4. As it stands.

Clause 5. As it stands.

Clause 6. Subsitute 3 months for one month. The word "shall" should be "may," the last words of the paragraph "either before or after such entry" should be struck out.

Clause 7. Leave in first five lines and strike out balance of clause dealing with reservations beginning "and with usual reservations."

Clause 8. A footnote should be added to Rule 8 as follows:—

"In the opinion of the Committee it should be specifically stated that a purchaser is not at liberty to sell the land or any portion of it until fully paid for and then only after the Crown Surveyor exercises a right of pre-emption at say 5 per cent. more than has been bona fide offered for it or declines to exercise that right. It should be provided that no lot of less than 5 acres can be sold or in any way disposed of unless in exceptional cases and then only on application to and with the consent of the Surveyor General. The tendency will certainly be for purchasers to sell portions of the land for "house spots," etc., and on small holdings this without the written consent of the Crown Surveyor, should not be permitted. The practice of small settlers selling bits of their land, or willing it away in small portions should long ago in the opinion of the Committee have been stopped by the Government. It has already rendered the making of a cadastral survey of the island almost an impossibility, and has increased the cost and trouble of the collection of taxes enormously. It should be remembered that the indiscriminate and chaotic selling or renting portions of small holdings has been a curse in Ireland and in the Highlands of Scotland and should be prevented here as a matter of good Government.

Signed on behalf of the Committee.

ROBERT CRAIG.
Chairman.

Mr. Craig said that he did not expect that the Board would adopt this Report right away, but he moved that a copy of it be sent to the Government for their information.

The President said that he had not much opportunity of perusing the suggested amendments, but if sent up to the Government he would do so early before the matter came up for consideration by the Legislative Council.

Mr. Levy thought that a clause should be added, whereby purchasers of Crown lands should plant economic trees around the border of their lands. He was sure they would all agree that the time had come when people should reafforest their places, and the clause he suggested would assist greatly in the matter.

The report was directed to be sent to the Government as suggested.

(c) *Co-Operative Marketing of Produce.*—The Secretary said that he had hoped to get this matter in a concrete form, but the Instructor, Mr. Arnett, had not yet been able to make the arrangements he thought he would have been able to make, regarding a centre. This matter had therefore to stand over meanwhile.

(d) *Prize Holdings Competition in Westmoreland.*—The Secretary said that the next parish for this Competition should be Westmoreland He had, however, representations from the Southern part of the parish that owing to the effects of the storm in 1912 the houses had not yet been put back in such order as to give the holdings a chance to compete, and it had been suggested that Special Competitions on the same lines as those that are being held this year in Hanover and Manchester might be held in Westmoreland instead of the ordinary Prize Holdings Competition. He thought they might leave it for the Branches in the parish to consider the matter first and send on their views. This was agreed to.

(*e*) *Cottage Holdings Competition.*—The Secretary said that after communication with the Instructors in various parishes, he had found that on the whole, it would be better for this Competition to be renewed in Portland this year, so as to follow up the good that had been done by this Competition there last year. This was agreed to.

(*f*) *Re Estimates.*—The following letter from the C.S.O. was submitted:—

No. 1780-2313. 11th February, 1915.

"I am directed by the Governor to enclose herewith for the information of the Board of Management of the Jamaica Agricultural Society, the accompanying copy of a circular which His Excellency caused to be addressed to Heads of Public Departments, calling on them, in view of the need for the strictest economy during next financial year, to submit lists of reductions in the Estimates of Expenditure as already submitted, and to inform the Board that His Excellency regrets that he considers it necessary to effect some reduction on the Grant to your Society, which His Excellency will submit to the Legislative Council, in respect of the year 1915-16. The Grant for the current year is Five Thousand pounds. His Excellency understands that a sum of Five Hundred pounds would provide for the filling up of two offices of Agricultural Instructors. If, therefore, the grant of Five Thousand is reduced to Four Thusand and Five Hundred pounds for next year, a reduction of Five Hundred pounds can be effected without any existing officer of the Jamaica Agricultural Society being interfered with. His Excellency therefore directs me to say, for the information of your Board, that he proposes, subject to any recommendations which the Board may desire to make, to place upon the estimates for next financial year, which are shortly to be submitted to the Legislative Council, a sum of Four Thousand and Five Hundred pounds as a Grant to your Society.

2. I am to say that, should it be desired and be of any assistance to your Board, His Excellency would be prepared to direct that the Superintendent of the Lititz Experiment Station should give such aid as he might be able to do in giving instruction in the surrounding district."

(Sgd.) ROBT. JOHNSTONE,
Actg. Colonial Secretary.

The Secretary said that the Society's Estimates were divided nto two—the General Estimates which came under the consideration of the Office Committee and the Instructors Estimates which came under the consideration of the Instructors Committee. Both Committees had met that morning and they had agreed that under the present circumstances the Estimates should be cut down as requested, and it had been found possible to arrange to dispense with certain services at a reduction of £250 on the General Estimates and £250 on the Instructors Estimates. These Committees, however, hoped that at the end of this financial year they would carry over a sufficient balance to make it possible to resume some of the services struck off.

The President said he hoped the Society would fully appreciate the circumstances. He thought the Society was doing valuable work and he hoped that its usefulness would in no way be impaired by this reduction. The Society, if it found it had funds, would of course be at liberty to resume the services they had now struck off.

(*g*) *Government Veterinary Surgeon.*—The following letter from the C.S.O. was submitted:—

No. 1936-1887. 15th February, 1915.

"I am directed by the Governor to acknowledge the receipt of your letter, No. 6824, dated the 3rd inst., intimating that, in the opinion of the Board of Management of your Society, it is advisable that the new Government Veterinary Surgeon when appointed, should be allowed to have private practice, in order that he might gain local experience and that the country pen-keepers might have the benefit of his services.

2. I am in reply to state that the Director of Agriculture had such a proposal under consideration and had made tentative enquiries with the object in view, but that the need for economy will now require other arrangements to be made, under

which only a part of the time of the person selected will be used by the Government and he will be left free to accept private engagements."

(Sgd.) G. M. WORTLEY,
Actg. Asst. Colonial Secretary.

Mr. Craig said that for many years past he had urged that the Government should appoint a Government Veterinary Surgeon of its own, and he noticed from remarks made at the last Meeting of the Board, that the demand was such that one was apparently not sufficient.

(*h*) *Contagious Diseases Animals Act.*—The following letter from the C.S.O. was read also copy Minute from the Director of Agriculture:-

No. 1956-1122. 15th February, 1915.

"I am directed by the Governor to acknowledge the receipt of your letter, No. 6355 dated the 22nd ultimo, representing that difficulty exists in certain cases in obtaining the services of the Government Veterinary Surgeon for the investigation and treatment of diseases amongst animals, and asking that arrangements may now be made for the Government Veterinary Surgeon to visit certain districts of St. Ann and St. Elizabeth in which there is at present an outbreak of disease amongst swine.

2. I am to inform you, in reply, that His Excellency has caused a record of the remarks which he made and the opinions which he expressed on the subject at the meetings of the Society held on the 20th and 21st ultimo, to be referred to the Director of Agriculture, who has stated that His Excellency's instructions have been noted for action as soon as a Veterinary Surgeon has been appointed.

3. In this connection, I am to transmit, for the information of the Board of Management of your Society the accompanying extract from Mr. Cousins' minute."

(Sgd.) ROBERT JOHNSTONE,
Actg. Colonial Secretary.

The President said he thought that the Director of Agriculture had quite realized that whenever any serious outbreak occurred among stock, whether such an outbreak was on the Schedule or not, the Government Veterinary Surgeon should be sent down immediately to investigate and report.

Mr. Stedman said they were all glad to hear such pronouncements from His Excellency, but he was afraid that nothing was done by the officer responsible after such pronouncements were made. As far back as the middle of January a suspicious outbreak had occurred on an estate among bananas but up to the present time it appeared that no report had been made on that outbreak to this Society and that the owner of the estate had not received a report as to whether the disease was Panama Disease or not.

Sir John Pringle said that personally he did not feel aggrieved at the delay in having a report on the specimens of bananas sent up to the Microbiologist because he did not know how much work the Microbiologist might have had in hand. The cases had been treated immediately and according to the regulations.

Mr. Simmonds said he could not agree with Sir Jno. Pringle. Such reports in such cases should be made at once.

Mr. Campbell said that matters of the kind under notice should take precedence to all other work.

The President agreed that such matters should be dealt with and reported on at once, and the Secretary was instructed to ask whether a report had been made by the Director of Agriculture on the cases in question, and if so, to ask for a copy of the report.

(*i*) *Sale of Cotton.*—The Secretary said he had reported at the last Meeting that a shipment of cotton from the Experiment Grounds had been reported upon as worth 12½d. to 15d. per lb. He had not expected it could be sold until the war was ended. He had, however, received through Mr. Watson, Bill of Sale for 2 bales at 1/1 per lb.,

which would give £24 7s. 6d. gross. His orginal pre-war estimates had been £30, so that the returns were, under the circumstances, satisfactory.

Mr. Cork said that this would depend upon what it cost to produce the cotton.

The Secretary said that this cotton was grown in various Experiment Grounds, some of them in poor types of soil hardly expected to grow cotton at all, but they simply wanted to satisfy themselves that it would not; some of the cotton was grown in chop holes, some in forked holes and some well cultivated. They could hardly take the expense of experimental tests into account; he could, however, give them the figures for typical plots at the next Meeting.

The following letters from the C.S O. were submitted:—

(*a*) *Re Resolution re Sugar.*—

No. 1220-1131/15. 29th January, 1915.

"I am directed by the Governor to acknowledge the receipt of your letter, No. 6356, dated the 22nd instant, and, in reply, to say that His Excellency concurs in the proposal of the Board of Management of the Society to defer taking any further action with reference to a proposed Resolution relative to placing Colonial sugar imported into the United Kindgom on the same footing as sugar that may be grown in the United Kingdom."

(Sgd.) ROBT. JOHNSTONE,
Actg. Colonial Secretary.

(*b*) Re *Panama Disease of Bananas.*—

No. 1179-1132. 28th January, 1915.

"I am directed by the Governor to acknowledge receipt of your letter, No. 6364 dated the 22nd inst., having reference to the question of giving publicity to any cases of Panama banana disease that may occur, and to inform you that the request contained in the third paragraph of your letter will be complied with."

(Sgd.) G. M. WORTLEY,
Actg. Asst. Colonial Secretary.

(*c*) *Re Inspection of Fruit.*—

No. 1341-339/15. 2nd February, 1915.

"With reference to your letter dated the 7th ultimo, I am directed by the Governor to state, for the information of the Jamaica Agricultural Society, that a Select Committee of the Legislative Council was appointed in March last to consider the question of introducing legislation for inspection of fruit by duly appointed officers, and that the report of that Committee will no doubt be brought up when the Legislative Council meets this month, but in the meantime no action will be taken by the Governor in the matter."

(Sgd.) G. M. WOTTLEY,
Actg. Asst. Colonial Secretary.

(*d*) *Food Crops in St. Mary.*—

No. 1342-1107/15. 2nd February, 1915.

"I am directed by the Governor to state, for the information of the Jamaica Agricultural Society, that the Secretary to the Board of Supervision, in the course of a report by him on conditions amongst the labouring classes, which he observed during a recent visit to St. Mary, made the suggestion that under present weather conditions, which are good, the people should be urged to plant largely, yams, beans, potatoes and sugar cane.

2. His Excellency is aware that the Society has already taken this matter in hand for the whole Island, but he thinks the need for planting such crops cannot be too often impressed on the people at the present time."

Ggd.) G. M. WORTLEY,
Ag. Asst. Colonial Secretary.

The Secretary said that within 4 days after the war broke out he had sent a special Circular round to the Branches and the Agricultural Instructors stating the position as nearly as could be forecasted and urging the planting of food crops to as great an extent as possible, and as quickly as possible, but drought down to the end of October

had prevented planting much in St. Ann and St. Mary. St. Mary also was mostly given over to bananas, but he understood from the local Instructor that far more in the way of food crops than usual was being grown. The Instructors Committee received a report from each Instructor every month on the food crops in their respective districts.

*Authorized Persons.*—A Return of the Arrests made by "Authorized Persons" under the Praedial Larceny Law, during the quarter ended 31st December, 1914, was submitted as printed on page 85.

The Secretary said that the pamphlet he had been instructed to prepare in January last year and which had been duly drafted and sent on to the Attorney General had only lately been returned; he was asked, however, to hold it over until the next session of the Legislative Council to see whether the distinction between Praedial Larceny and common Larceny would be abolished.

*Sooty Mould on Citrus Trees.*—Letter from the Director of Agriculture *re* Sooty Mould on Citrus Trees was submitted as follows:—

No. Y. 114. 26th January, 1915.

"In reply to your letter of the 22nd inst., requesting me upon the instructions of the Board of Management of the Jamaica Agricultural Society to afford information as to the 'sooty mould' of citrus trees, and the statement made by Mr. Hanson that the Microbiologist had reported the presence of a parasite here which preyed on the scale insects causing 'sooty mould,' I have much pleasure in doing as requested.

(2.) " 'Sooty mould' is caused by the development of the fungus *Meliola Camelliae* on the honey-dew or excretion of various insects of the families *Aleyrodidae*, *Coccidae* and *Aphididae*, of which the black fly and the white and purple scales are the chief pests of citrus trees in Jamaica.

(3.) "I understood the representations of the Branch Society which you referred to me to be with reference to the 'black fly or black scale' which has been a noticeable pest in St. Andrew for some years and have recently become prevalent on citrus, mango, coffee and other trees and plants.

"Professor Quaintance has recently named this insect from specimens sent from the Department as *Aleurocanthus Woglumi* and considers that it must have come to Jamaica with East Indian plants. Whatever its origin, it has been known on the Liguanea Plain for 20 years.

"The honey-dew from this insect frequently combines with that from the ordinary scales on citrus trees in St. Andrew to produce 'sooty mould.'

"As this Aleurodid is reported not to be of economic importance in India, it is probably controlled in that country by insect or fungoid parasites; and, as stated in my minute to you of the 11th inst., I propose as soon as our new Entomologist, Mr. Ritchie, arrives, to endeavour to obtain parasitised material from India to initiate a control of this pest by natural means as in that country.

"The Microbiologist reported to me on the 2nd inst. that he had found for the first time on materials from Mr. Lecesne of Marker's Park, evidence of a red fungus parasite on 'black scale' of Coffee and Citrus resembling the red *Aschersonia* which parasites the 'white fly' in Florida. This is of great interest and may lead to some practical results, but in view of the reported lack of virulence of this 'black fly' pest in the East and its free spread in the Liguanea Plain of Jamaica, I consider we are most likely to obtain an effective parasite from India. The *Aleurocanthus* is unknown in Florida and, we therefore, have no *data* from there to go on in this matter.

(5.) "Fungoid parasites of the various scales are generally distributed in the West Indies and in Jamaica but their action is largly regulated by climtic conditions and where these are unfavourable, the parasites are powerless and the scales flourish unharmed. For example plants that suffer severely from scale at Hope Gardens become free from scale in a short time if transferred to Castleton Gardens where the damp atmosphere encourages the spread of fungoid parasites to such an extent as to annihilate the scale.

(6.) "With regard to the control of 'sooty mould' by Law, this implies the control of all scales, *Aphids* and *Aleurodids* which are the originating cause of the honey-dew which forms the medium for the 'soot' to develop.

"Spraying with lime and sulphur wash is probably the most effective means of controlling the scales, but the 'black fly' (*Aleurocanthus*) is harboured by mangoes, roses, coffee, and so many other plants and trees, that its treatment can only be by palliative measures when a citrus tree is attacked,

"Mr. Ashby's experiments indicated that kerosene was the best agent of destruction for ths pest and washes with a large proportion of kerosene are therefore indicated to be effective for this purpose."

(Sgd.) H. H. COUSINS,
Director of Agriculture.

The Secretary was instructed to publish the letter in the JOURHAL.

*Praedial Larceny & Flogging.*—The Secretary said that a few Meetings ago he had been asked by Mr. Simmonds to write and find out what was being done in Trinidad as regards flogging for Praedial Larceny, and he had now received the following reply:—

Agricultural Society of Trinidad & Tobago,
Port-of-Spain,
26th January, 1915.

"I am in receipt of your letter of the 21st ultimo.

This Society has for many years been trying to impress upon the Government the necessity of inflicting corporal punishment in cases of praedial larceny, but without much effect. As the Law stands the punishment by flogging must be imposed on second offenders, but cannot be given effect to without the sanction of the Governor. This has always been the stumbling block. Magistrates say it is no use ordering the "Cat" when the Governor countermands the order. Of late it is understood that our present Governor has hardened his heart and is giving effect to the sentences of the Magistrates, but sufficient time has not yet elapsed to note the result, and no report has been issued.

Former experience, however, clearly demonstrated that flogging was the one and only remedy to deal with this the worst crime short of those affecting the person known in the West Indies."

(Sgd.) EDGAR TRIPP,
Secretary.

Mr. Simmonds said it was a pity the Secretary had not asked for the specific results of flogging as regards stealing of cocoa.

*Experiment Ground.*—The Secretary read letter from the Director of Agriculture as follows:—

No. Y. 118. 26th January, 1915.

"In reply to your letter dated the 21st November, informing me that the Instructors Committee do not propose to continue their grant to Mr. Palache's Experiment Ground in Manchester during the next financial year, I am now able to state for the information of the Instructors' Committee that His Excellency regrets that he cannot authorize a provision for this purpose on the Estimates of this Department.'

(Sgd.) H. H. COUSINS,
Director of Agriculture.

*Loan Banks.*—The Secretary submitted resolution from the Richmond Board asking the Board to intervene with the Government with regard to an extension of time for the repayment of loans made by the Local Loan Bank.

The Governor said he had received some other resolutions from local Loan Banks on the same matter, and the question was under consideration.

The Secretary was instructed to reply accordingly.

*Instructors.*—The Instructors Reports and Itineraries were submitted and directed to be circulated to the Instructors Committee as usual.

*Statements of Accounts.*—Statement of Accounts was submitted and tabled.

*New Members.*—The following new members were elected:—

Messrs. C. W. Bailey, Williamsfield P.O.; L. A. Buckland, Kintyre, Hope P.O.; Frank Davis, Hagley Park, Half-way Tree P.O.; E. A. Dodd, Government Railway, Kingston, and Dr. J. C. Monaghan, U. S. Consul.

The Meeting adjourned until March 18th, 1915, at 11.40 a.m.

Return of Arrests made by "Authorized Persons" under the the Prædial Larceny Law, during the Quarter ended 31st December, 1914

| Parish. | Names of "Authorized Persons" who prosecuted. | Name of Defendant. | Offence for which prosecuted. | Remarks. |
|---|---|---|---|---|
| Kingston | Nil | Nil | Nil | Nil |
| St. Andrew | Nil | Nil | Nil | Nil |
| St. Thomas | Nil | Nil | Nil | Nil |
| Portland | William Hossack | Joseph Shand | Unlawful possession of Cocoa | Withdrawn |
| St. Mary | Robert Jackson | Robert Richards | " " " Coconuts | 14 days H. L. D. P. |
| " | Nathaniel Grant | James Brown | " " " " | 2 months H. L. D. P. |
| " | Robert Pollack | Edward Stanbury | " " " Yams | Dismissed |
| " | Benjamin Forrest | George Tindale | " " " Yamheads | 2 months H. L. D. P. |
| St. Ann | Adam Fulton | Uriah Whitehorne | Praedial larceny of Bananas | 5 months H. L. D. P. |
| Trelawny | Joseph Dixon | Samuel Wright | Unlawful possession of Coconuts | 14 days H. L. Lock-up |
| Saint James | Nil | Nil | Nil | Nil |
| Hanover | William Allen | Elizabeth Davis | Unlawful possession of Bananas | Discharged |
| Westmoreland | Reuben Blake | Arthur Bennett | Unlawful possession of Yams and Bananas | Bailed for trial on 8.1.15 |
| St. Elizabeth | Nil | Nil | Nil | Nil |
| Manchester | Nil | Nil | Nil | Nil |
| Clarendon | Robert Robotham | Nathan Allen | Unlawful possession of Yams | Discharged |
| " | John Howard | Moses Grant and Joseph Saunders | " " " Coconuts | 2 months H. L. D. P. each. |
| St. Catherine | Nil | Nil | Nil | Nil |

Inspector General's Office,

Kingston, February, 1915.

A. E. KERSHAW, Lt-Colonel,

Inspector General of Police.

## FARINE.

The various articles on Cassava Farine, mentioned in the last JOURNAL, which should have appeared in this month's issue, will appear in the April Journal.

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## INSECT PESTS.

Now that we are growing a greater variety of crops, and there has been an introduction of plants and seeds from other countries and more intensive cultivation than formerly, our experience is becoming the same as that of every other country, that is, we have more and more trouble with Insect Pests. The dealing with insect life in relation to plant life is a special branch of Science called Entomology. This Society has long been calling the attention of the Government to the advisability of appointing a trained Entomologist before these pests get such a hold on the country that planters and Government will require to make expensive efforts to deal with them. It has been promised, and we believe arranged, that an Entomologist will join the staff of the Department of Agriculture at Hope Gardens at the end of March. This should be most useful to us and there is plenty of work awaiting this officer.

Fortunately we are not so bad as many other countries growing similar crops as ourselves. Perhaps the group of islands approximating more nearly to Jamaica than any other in latitude and productions, is the Hawaiian group in the Pacific, and we often find useful information from efforts they make in various directions. They have a strong Department of Entomology in these islands, and of course they need more of these officers than we do, as they are much larger and apparently more troubled with Insect Pests than we are.

A useful circular has been issued by an Entomologist there, which we quote:—

"One of the features of the Hawaiian Islands is that nearly every one, whether he lives in the city or country, is in one way or another interested in plant growth. Scarcely a door yard but has its ornamental plants, shrubs, and trees. Very many of the inhabitants devote much time and attention to the cultivation of various fruit trees, some for private use only, others on a commercial scale. But the days when planting and irrigation was the only attention plants required, if they were ever here, are now past and gone. Vegetation upon these islands is now beset with many ills, not the least among which is injury by insects. Numerous species of scale insects, cut worms, the Japanese beetle, the Olinda beetle, and many other insect pests, too numerous to mention in a circular, have come to stay with us. If there is consolation in numbers we may find it in the fact that our fate is not worse than that of the rest of the world engaged in the cultivation of plants. Man, however, acknowledges no insurmountable obstacles in his way of promoting desirable plant growth. With all means available to science he gives no quarter to his enemies. He fights until the battle is won.

About twelve years ago the advance of the insect army upon our vegetation became so serious that the government was compelled to appeal to a scientist for assistance. The services of Prof. Albert Koebele were fortunately secured, and the war of insect extermination was earnestly begun. Relentlessly has the conflict been waged since that year, and the comparative scarcity of what were formerly pernicious pests is ample evidence of the success of the undertaking. More recently the Board of Commissioners of Agriculture and Forestry has organized a Division of Entomology to carry on the work more effectively. With the object of drawing the attention of the people of this Territory to the work of this Division, in order to establish more intimate and frequent communication between the people suffering from insect injury and the workers in this Division from whom they may secure help, this circular has been written.

The office and laboratories of the Division of Entomology are located in the building at the Government Nursery on King Street, Honolulu. The working staff consists of the following:—

Alexander Craw, *Superintendent of Entomology and Inspector.*
Albert Koebele, *Consulting Entomologist and Entomological Explorer.*
Jacob Kotinsky, *Assistant Entomologist.*
C. J. Austin, *Inspector's Assistant.*

DUTIES OF THE STAFF.—The Entomological staff wrestles with all insect problems outside those affecting sugar cane. In general the work of the Division may be divided into four classes, as follows:

I.—INSPECTION AND QUARANTINE.—It has long been realized that practically *all* our insect pests are of foreign origin. At one time or another in the past they have been introduced into these islands upon various plants and fruits brought from other countries. Those insects that have found the climate suitable and food in plenty have multiplied in proportion, and in time have become our pests. We have by no means exhausted the world's supply of insects that might become dreaded citizens of our fair isles. In order to keep those possible scourges from obtaining a foothold on our shores, a strict system of inspection and quarantine has been established by the Board. Mr. Craw, assisted by Mr. Austin, meets all incoming vessels and inspects all fruit, plants, tubers, etc., for insects or diseases that they may carry. All such plants and fruits infested with insects or fungi not known to exist on these islands are immediately destroyed. Plants that are infested with a species of insect already established here are fumigated with hydrocyanic acid gas. This gas is used at a strength that does not injure the plants, but kills all insect life upon them. The object of killing such insects is to prevent the infusion of new blood and vigor into those pests already here.

II.—SEARCH FOR AND DISTRIBUTION OF BENEFICIAL INSECTS.—Prof. Albert Koebele has virtually saved the vegetation of this Territory from disfigurement and utter destruction by means of the numerous lady birds and other beneficial insects which he has introduced from all parts of the world in the course of the past twelve years. This is a kind of entomological work of which only the State of California and the Territory of Hawaii have made a specialty. The almost clean and healthy condition of our trees and shrubs at present, in comparison with what it was before Mr. Koebele's coming, is sufficient testimony to the good work he has done. The services of Prof. Koebele are still at the disposal of the Territory. His mission is to travel in foreign lands, search for enemies of our injurious insects, and introduce them into the Territory. Moreover, he being the "Kamaaina" of the Division, his knowledge of the Hawaiian insects is of great value to the Division and the Territory.

III.—BREEDING AND DISTRIBUTION OF BENEFICIAL INSECTS.—A good deal of the work of this laboratory consists in the breeding and distribution of useful insects. Various lady-birds and minute four-winged flies are engaged in the good work of checking the rapid increase of scale insects, plant lice and other insect pests. As neither the "good" nor the "bad" insects are at all times equally distributed over the islands, it is the business of the Division of Entomology to supply the "good" ones wherever they are needed. For this purpose a constant supply of some of this class of insects is kept in breeding jars and cages. Others again are collected outdoors and sent to correspondents.

IV.—STUDY OF INJURIOUS INSECTS AND METHODS OF CONTROLLING THEM.—Insect life, like all other forms of life, travels in a cycle. As in a cycle there is no definite beginning or end. On and on it rolls from father to son and from son to father. Full grown females produce eggs, from which hatch young, which after a certain period of growth, become mature and lay eggs in turn. The length of time consumed between any one stage in the life cycle and the same stage beginning the next cycle, as between egg and egg, varies with the species (kind) of insect, with the temperature and other climatic conditions. In the temperate zones, the active life of most living objects, plants and animals, is interrupted by the winter months. During cold weather most forms of life remain at a standstill. The number of life cycles that any one species of insects would complete in a course of a year is thus reduced.. Such is not the case in a salubrious, sub-tropical climate like ours. All forms of life continue in activity the year around. No stage of the cycle is omitted; neither is any stage of it extended because of cold, though normal variation due to fluctuation in temperature and moisture is bound to take place. Thus a species of insects that on the mainland produces from one to three *broods*, as cycles are sometimes called, if established here, breeds practically continuously and produces perhaps twice as many broods. The seeming calamity is atoned for by the equally rapid growth of vegetation. Where one crop a year is raised on the continent, two and three are grown here. Naturally, the more crops we raise upon a given

area in the course of the year the more attention we must devote to that area, in exact proportion to the number of crops and care given to a similar area in a colder climate on the mainland.

In a new environment the behaviour of insects will change The climate, amount of food, and number of natural enemies contribute toward this behaviour. As said before, practically all of our injurious insects are of foreign origin, and, except those that are also injurious in the United States, little is known about their habits. We fight injurious insects with their natural enemies whenever these are available. But in the case of injurious insects for which the natural check has not yet been secured, we cannot know too much about their habits and life history. A complete knowledge of these facts can alone reveal to us a loophole through which we can manage to bridle their ravages by cultural or artificial means. It is with the object of discovering these loopholes that we study the habits of injurious insects. There is still much to be done in this direction.

HOW WE HELP FARMERS AND PLANT GROWERS.—As already stated, when beneficial insects are available these are always supplied to applicants. When these are not to be had, however, we are able, in the majority of instances, to offer good advice, or prescribe efficient remedies. Thanks to the good work of Mr. Koebele we have on these islands a good supply of most useful insects. At all times some of these are to be had in some place. Honolulu is excellent breeding ground for all of them, and we always have an eye on the places where certain species of these are to be procured, if we do not breed them in the laboratory. And thanks to the efforts of American entomologists we know of a number of standard remedies that are efficient against various insect pests. Either beneficial insects or prescriptions for remedies, it is our duty to supply to our correspondents.

When our knowledge and farmers' needs warrant it we shall publish bulletins or circulars from time to time giving information on various insects or groups of insects. It is our belief that farmers ought to know about their insect enemies to be able to forestall serious damage by prompt and intelligent application of preventives. This kind of knowledge we hope to impart in our future publications. This, our first one, is of the nature of an introduction, and we hope will in a way prove useful to the farmer and home owner.

HOW TO SECURE INFORMATION ABOUT INSECTS.—It is both our pleasure and duty to study all phases of insect life. The farmer and grower of ornamental plants does it only when driven by necessity, and usually after the harm is done. Naturally he cannot be expected to know at sight whether an insect is injurious or not. Very often he mistakes the "good" for the "bad." In Hawaii especially, all plant ailment is attributed to "blight." "Blight " is a very indefinite word. An insect may be biting or sucking its food; it may attack the blossom, leaves, branches, stem, or root of the plant. Sometimes, indeed very often on these islands, the cause of the injury may be a fungus, a true blight. In each case perhaps a different remedy is required, and *unless we see the actual or supposed culprit we cannot suggest a remedy.* Therefore, when information about insects is desired, specimens should always be brought or sent with the inquiry.

HOW TO COLLECT AND SEND SPECIMENS.—It is desirable to have specimens of the injury as well as the insect that inflicts it. We prefer *living specimens* when these are procurable. In the absence of these, dead ones will help us to identify the culprit. Collect during the day or at night, with lantern in hand, depending upon whether the damage is done during the day or night. We can identify adult (mature) insects more definitely, so collect these when possible. But any stage will do when adults are not available, and all stages would be most satisfactory. Collect and send also specimens showing the nature of the injury. Place all the specimens in a small tin can or strong wooden box and mail them to us. No air holes are necessary. Biting insects, like caterpillars, require food, and some of their food should be placed with them. Scale insects may be sent upon a bit of their food plant inclosed in a tin or strong wooden box. A few specimens are sufficient. Wrap the box neatly in a paper, tie it, and write our address upon it.

CO-OPERATION.—His time spent mostly in the field, the farmer has abundant opportunity for making observations, which may be brought to our attention only through him. These observations may sometimes be of the greatest importance, although they can be fully appreciated by an entomologist only. It is, therefore, highly desirable to both farmer and entomologist that the latter be informed of all important observations made by the former. In other words, it is to the farmer's benefit to keep in touch with the institutions directly concerned with his interests and which he helps to maintain. Farmers should make it a point to visit this office when possible, and write us when they need assistance. Send specimens, ask questions, try to learn from us all we know about insects, and tell us all you know about them.

## COTTAGE HOLDINGS COMPETITION IN PORTLAND.

As there were a large number of very small holdings in Portland with houses attached, mostly situated along main roads which could not enter for our Prize Holdings Competition, owing to their small extent, and as the owners were disappointed at this and keen on having some competition, a Cottage Holdings Competition was instituted and has gone through. The following is a report of the Judge, Mr. Cradwick, who accompanied the local Instructor, Mr. Wates, in inspecting the holdings entered:—

### *Report of the Judge.*

I beg to report that Mr. Wates and myself judged the holdings entered in the Cottage Holdings Competition of Portland, Monday. 7th December, to Thursday, 17th. I am pleased to say that although the Holdings in the Western part of Portland did not exhibit the same amount of improvement as those under Mr. Wates' charge, the Competition was as a whole a very great success.

The mark sheet submitted herewith will show the strong points as well as the weakness of the individual holdings so that I feel nothing will be gained by going into elaborate details on these points.

This is the first time this Competition has been tried and I would strongly recommend its continuance, and if possible its extension particularly in the form of more prizes, five prizes in a Competition of 37 entries is not sufficient to ensure the continuance of future effort, in fact I would beg the Society, if they can possible see their way to do it, to add some money to the Prize List on this occasion, failing that, to award a Certificate to each holding scoring over 60% of the marks, as I can assure the Society, that the effort expended and the improvement wrought in the holdings, to secure that percentage of marks under the rigorous system of marking adopted by myself and Mr. Wates, thoroughly deserves some recognition.

One of the objects gained by this competition, is to interest and encourage settlers to improve the appearance of their homes, when these are situated on small pieces of land, many of which have been in possession of the families for years, while the owners have been compelled to earn their living by cultivation, or otherwise, elsewhere. a very necessary thing in many parts of Jamaica and particularly in such districts as Long Bay, Priestman's River, Boston and Castle. The same necessity exists in districts like Charlestown, but with these unfortunately, owing to a combination of circumstances, the competition was not the success as it was in the first mentioned districts.

It was most encouraging to note the efforts which had been made in this competition particularly in the way of white washing, painting, papering the houses, repairs or the erection of new fences. Attention to sanitary matters and the general tidying and cleaning up of the premises.

I am not sure that it would not be a wise thing, in the future, not to take into consideration the stock on these very small holdings, as this very often consists of animals that are kept almost entirely away from the holding, being simply brought in there to be harnessed, cleaned or grain fed. Some remarkably well cared animals however, were seen in the Boston district, as good as, I think, I have ever seen in any holdings Competition. I was also much struck with the number

and quality of fowls kept by the owners of these holdings, ten being I think the smallest number of chickens found on any of the holdings, and as a rule they are of excellent quality; the majority of them keeping some 15 to 24 chickens.

There is great room for improvement in the pigs, however, a really good pig was the exception rather than the rule, and I particularly draw the attention of the Society to the necessity of some effort to improve this class of stock.

In future competitions I doubt if it is wise to encourage the keeping of pigs at all on these very small holdings, at any rate, the marking must be very severe for insanitary conditions of pigs kept on these holdings, apparently the keeping of pigs on very small holdings is largely a matter of keeping them shut up in a more or less insanitary sty during the day, and allowing them to run out at night to damage their neighbour's crops or dig up the water tables on the public roads.

(Sgd.) W. CRADWICK.

| Names. | Address. | House. | Gates and Fences. | Sanitation. | Vegetable Garden. | Flowers. | Permanent Crops. | Stock. | Total Points. | |
|---|---|---|---|---|---|---|---|---|---|---|
| Mr. Charles Patterson | Priestmans River | 16 | 13½ | 19 | 15 | 3 | 13½ | 8 | 88 | 1st priz £1 10 |
| Mrs. E. Duncan | Priestmans River | 17 | 12½ | 15 | 15 | 3 | 13½ | 9 | 85 | 2nd priz £1 0 |
| Mr. D. Webber | Priestmans River | 17 | 13½ | 15 | 13½ | 5 | 9 | 9 | 82 | 3rd prize 15 |
| Mr. Alfred Taylor | Fairy Hill | 20 | 10 | 20 | 4½ | 5 | 12 | 9 | 80½ | 4th prize 10 |
| Mr. E. Brooks | Priestmans River | 16 | 13½ | 18 | 11 | 4 | 6 | 8 | 76½ | 5th priz 5 |
| Mrs. R. Francis | Manchioneal | 15 | 12 | 17 | 7½ | 4 | 13½ | 5 | 74 | |
| Mr. Geo. Deans | Long Bay | 16 | 13½ | 16 | 9 | 5 | 7½ | 5 | 72 | |
| Mr. A. Webber | Priestmans River | 16 | 13½ | 10 | 13½ | 4½ | 6 | 8 | 71½ | |
| Mr. Levi Josephs | Bangor Ridge | 12 | 11 | 13 | 15 | 2 | 11 | 6 | 70 | |
| Mr. Simeon Speid | Long Bay | 10 | 13½ | 8 | 13½ | 2½ | 13½ | 8 | 69 | |
| Mr. Nath. Wilson | Priestmans River | 14 | 12 | 15 | 4 | 2 | 11 | 8 | 66 | |
| Mr. Robt. Deans | Long Bay | 14 | 12 | 15 | 10 | 2½ | 6 | 5 | 64½ | |
| Mr. Geo. McPherson | Chantilly | 10 | 9 | 7 | 12 | 2½ | 14 | 9 | 63½ | |
| Mr. C. O. Berry, | Priestmans River | 16 | 9 | 10 | 6 | 2½ | 11 | 9 | 63½ | |
| Mr. J. Lafayette | Avocat | 17 | 10 | 14 | 4 | 3 | 11 | 4 | 63 | |
| Mr. Thomas Beckford | Hectors River | 18 | 13½ | 10 | 7½ | 2 | 6 | 6 | 63 | |
| Mrs. Eliz. Kelly | Long Bay | 16 | 12 | 12 | 3 | 3 | 13½ | 3 | 62½ | |
| Mr. A. Tucker | Mt. Hermon | 10 | 7 | 10 | 10 | 2 | 15 | 8 | 62 | |
| Mr. Edmund Reid | Hectors River | 18 | 10 | 10 | 9 | 2 | 6 | 6 | 61 | |
| Mr. T. T. Huggins | Balcarres | 16 | 10 | 14 | 5 | 0 | 14 | 4 | 61 | |
| Mr. Matthias Moodie | Hectors River | 15 | 12 | 12 | 9 | 2½ | 6 | 4 | 60½ | |
| Mr. Evan Street | Long Bay | 16 | 12 | 12 | 3 | 3½ | 11 | 3 | 60½ | |
| Mr. Chas. Burke | Priestmans River | 18 | 7½ | 10 | 10½ | 2 | 9 | 3 | 60 | |
| Mr. Thos. Plummer | Manchioneal | 14 | 12 | 10 | 6 | 2½ | 6 | 9 | 59½ | |
| Mrs. Francis Sutherland | Charles Town | 20 | 12 | 12 | 4 | 0 | 6 | 5 | 59 | |
| Mr. James Afflick | Hectors River | 9 | 12 | 14 | 4½ | 4 | 10½ | 5 | 59 | |
| Mr. Thos. Brown | Priestmans River | 12 | 11 | 12 | 8 | 2½ | 6 | 6 | 57½ | |
| Mr. Moses Leslie | Port Antonio | 10 | 11 | 14 | 6 | 4 | 6 | 6 | 57 | |
| Mr. Chas. Parkes | Priestmans River | 9 | 10 | 8 | 9 | 2½ | 11½ | 6 | 56 | |
| Mr. Alex. Welsh | Long Bay | 14 | 12 | 14 | 0 | 4 | 6 | 5 | 55 | |
| Mrs. M. Plummer | Hectors River | 16 | 9 | 10 | 4½ | 2½ | 6 | 5 | 53 | |
| Mr. James Bryan | Priestmans River | 10 | 15 | 0 | 12 | 2½ | 6 | 7 | 52½ | |
| Mr. J. Macgaw | St Margaret's Bay | 12 | 4½ | 2 | 10 | 2 | 12 | 9 | 51½ | |
| Mr. H. H. Burke | Priestmans River | 18 | 10½ | 0 | 0 | 4 | 12 | 7 | 51½ | |
| Mr. D. Parker | Swift River | 12 | 6 | 13 | 0 | 3 | 8 | 6 | 48 | |
| Mary Anderson | Hectors River | 12 | 9 | 0 | 7½ | 2½ | 7½ | 4 | 42½ | |
| Mr. John Holgate | PriestmansRiver | 8 | 12 | 0 | 0 | 0 | 12 | 4 | 36 | |

## WORMS IN YAMS.

*(Being letter from the Hon. Director of Agriculture to the Government, with Report made by the Microbiologist on attacks of worms on Yams and Sweet Potatoes in St. Catherine.)*

With reference to the reported prevalence of worms in the yams grown in some districts of St. Catherine, I have the honour to submit herewith a report in duplicate by the Microbiologist on experiments which he has carried out at my suggestion in methods of treating infected yam-heads.

2. Treatment with Lime Wash or diluted "Jeyes" has been found effective in destroying larvae in the yam heads tested at the Experiment Station at Hope and such treatment is therefore to be recommended where infected material is being planted in un-infected soil.

3. As Mr. Ashby points out where the soil is infected from a previous visitation, rotation of crops is the only practicable means of preventing a further spread of the worms in the new crop.

4. By sterilising infected yam heads with Lime Wash and planting in clean land, healthy yams can be grown, while infected land should be planted with other crops for two years before yams are replanted. It is satisfactory to find that the cheap material, Lime is effective, whereas the more expensive and dangerous chemicals, Carbon Bi-Sulphide and Arsenic, killed the plants.

5. I recommend that this matter be communicated to the Board of Management of the Agricultural Society with a view to the widest publicity being given to the results of Mr.Ashby's investigation.

(Sgd.) H. H. Cousins,
Director of Agriculture.

Department of Agriculture,
Hope Gardens, Kingston.

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TO THE DIRECTOR OF AGRICULTURE.

*(Report on Experiments with Yams attacked by Weevils.)*

A supply of infested yam heads was forwarded by the Instructor , St. Catherine, in July from a district in the parish where weevil attack was severe. The yams were treated with various insecticides at the Laboratory and planted at the Experiment Station, Hope, on the 10th July.

*Treatment:—*

1. Untreated.
2. Covered with powdered naphthalene balls for 48 hours in a closed jar.
3. Enclosed in an iron drum for 24 hours with Bi-Sulphide of Carbon at the rate of ½ ounce (fluid) per cubic foot space.
4. Soaked for 2 hours in 5 per cent Jeyes fluid.
5. Soaked for 4 hours in limewash at the rate of 1 pound quicklime in a gallon of water.
6. Soaked for 2 hours in paranaph solution at the rate of 1 pound per gallon.
7. Soaked for 2 hours in paranaph of same strength with 1 fluid ounce formalin per gallon added.
8. Soaked for 2 hours in paranaph of same strength with 1 ounce arsenite of soda added.

The yams were dug on 2nd February, weighed and examined. All were yellow yams except one plant on the Jeyes fluid plot which was a negro (Lucea) yam. The plants were grown with the aid of irrigation and the yams were not fully matured when dug but would have become so after another month in the ground.

*Comment.*—All the untreated yam heads had grown, but two bore only nodular swellings less than 1 inch in diameter at the base of the stems, the heads were bored and contained several living larvae of the weevil. The weevils in the heads planted had evidently continued their work and rendered growth very backward. The body of the yams grown from the treated heads showed no trace of being bored, but in some cases the older parts of the heads were bored and larvae and pupae were found in the tunnels. The Bi-Sulphide of Carbon and the paranaph arsenite treated heads failed to grow. The treatment with Bi-Sulphide was evidently too prolonged, probably 12 hours would have been sufficient to destroy the insect without killing the head. The soluble arsenite is too powerful a poison of plants to be of practicable use. Limewash and Jeyes fluid were equally effective in destroying the insects in all the heads while the other agents failed to kill all the weevils (larvae, pupae or adults). It is satisfactory to note that two cheap and easily obtained

insecticides were the most effective. The limewash was made from freshly slaked stone lime. Either stone lime or recently burnt quicklime powder should be used as old slaked lime is not caustic so cannot be effective. The actual damage is done by the small white legless worm of the weevil boring into the substance of the yam, the beetle itself does not bore but merely abrades the rind and deposits its eggs either on the rind or just beneath it. When the worm is full grown it works its way outwards to a point just beneath the rind , forms a small cell and turns into the resting form or pupa which in turn gives rise to the perfect weevil. After a severe attack many fragments of the decayed rind enclosing full grown worms and pupae break off and remain in the soil when the yams are dug; in this way the following crop becomes attacked also. This weevil also infests sweet potatoes and probably Irish potatoes and cassava hence it would be safer after a severe attack on yams not to follow with a root crop but with corn, cane, peas or beans. The treatment of the yam heads with limewash and Jeyes fluid (Kreso or Pattinson's fluid would do as well as Jeyes) can only prevent attack by weevil when the heads are planted in land not already infected by weevil from a previously infested crop. Weevil attack on root crops is severe only during drought and naturally is at its worst on sandy exhausted soils. Attempts in the West Indies to destroy the related sweet potato weevil (Scarabee) in the soil have not been successful. The results of the experiment are shown on the accompanying table.

(Sgd.) S. F. ASHBY,
Microbiologist.

| Number. | Treatment. | Heads planted. | Plants grown. | Crop pounds. | Remarks. |
|---|---|---|---|---|---|
| 1 | Untreated | 3 | 3 | 2½ | 2 plants with nodular & larvae in borings. |
| 2 | Napthalene | 3 | 2 | 5½ | One head bored and larvae present, one stalk bored. |
| 3 | Bi-Sulphide | 3 | 0 | — | All failed. |
| 4 | Jeyes fluid | 3 | 2 | 14 | Heads not bored. |
| 5 | Limewash | 4 | 4 | 9 | Heads not bored. |
| 6 | Paranaph | 3 | 3 | 9½ | One head bored and larvae and pupae present. |
| 7 | Paranaph & Formalin | 5 | 4 | 9¾ | One head bored and larvae present. |
| 8 | Paranaph & Arsenite | 4 | 0 | — | All failed. |

(It is gratifying to us to note that the treatment recommended by the local Agricultural Instructor, Mr. H. L. Mossman, to the growers in his district when the attacks of Worms in Yams were very severe, viz; to soak the heads before plantiug in strong Lime Wash with the addition of a little Jeyes' Fluid (a tablespoonful to a gallon of Lime Wash) a treatment he had already tested—has been proved on test with otber methods to be tbe most effective.)—ED.

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## RATS.

"Rats" is an expression, frequently and forcibly, though not politely, used to express disagreement and contempt for the opinion of another, or for a statement of fact. It is therefore as may be readily imagined by no means pleasant, for an Agricultural Instructor, to so often find at the end of an eloquent and soul-stirring lecture on the proper way of growing corn by modern methods or the right

way to care cocoa trees to get large crops, to find, I say, some solemn faced and severe old gentleman of the small proprietor class rising at the back of the room and ejaculating the oracular and disconcerting word "Rats." Of course, one desperately battles against this insidious attack and points out the need of getting rid of bush, surplus of trees around, using poison and traps, but one feels all the time that these are methods tried (it is true not systematically but still, enough for the purpose) and found wanting. One sits down finally with a sense of having failed to convey the main point on account of this uncomfortable word "Rats."

The other day however, in talking with an old gentleman at Fellowship, I got this tip, probably worthless but nevertheless possibly effective and worth trying. He informed me that seven years ago rats and rat bats played fits with his cocoa and he tried the following experiment. Result, no rats or rat bats had come back again for seven years past. I being sceptical, he got a bit worked up and offered to bet £100 on the results, saying the rats would run from Fellowship to Moore Town and never return.

The scheme is to build one or more wood fires ready for lighting on the windward side of the cocoa walk or cocoa field. At dusk on an evening with a steady breeze blowing, light same and throw on them 3d. Frankincense, 3d. Brimstone, 3d. Sulphur, 3d. Myrrh, the fancy ingredients I suppose, and one quart of bird pepper, the real obeah. Then clear out or you repent it, and leave the rats and bats to enjoy the incense prepared for them. Results he claimed are exodus of rats and bats never to return. The question is, is there anything in it? Three years ago cockroaches got into my new Piano and began to make hay. I set some phosphorous paste and killed 16 dead. From that day to this, three years, I have never seen one back in it. The news has been passed to the cockroach community that my piano is a bad place. If roaches have so much sense, what about rats? What price a trial?

L A. W.

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We can quite understand that rats and bats would object to the smell of Brimstone or Sulphur and clear out temporarily, but we doubt if this would make them clear out permanently unless it was repeated. We do not see, however, why Brimstone and Sulphur should both be used, as both are practically the same, and merely for burning purposes the Brimstone would be the cheaper.

We know one Cocoa planter whose record for last year is 9,000, rats all caught in traps by boys. The most economical trap to use, and a very effective one is the locally made bamboo trap, common in some, but not all parts of the island. It is very deadly and rats do not seem to fight shy of it as a bamboo or withe trap is very natural. This trap should be used by everyone on plantations.

If anyone does not know these traps, they can see them at this office.
ED.

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"I have ordered six of my special rat traps as samples and will endeavour to get them to you by an early opportunity. If every householder, planter or not, could be persuaded to use them steadily and constantly there would be in a few years a very different state of things. But it is of *no use* doing what the Parochial Boards seem

to think good enough, that is to say, catch by fits and starts. It simply means throwing away money, for the remaining members of this great family being better fed, propogate with renewed vigour and fecundity."

A. N. D.

—:o:—

## BANANA MEAL.

In an experiment in making Banana Meal, 38 small bunches weighed 915 lbs. They must have been really small, as that only gives an average of 24 lbs. a stem. The skins and stems weighed 378 lbs., and the peeled bananas 537 lbs. which gives 138 lbs. of meal, very nearly one-quarter. The fruit being very small, the bunches were valued at 3d. a stem, total 9/6. The meal cost 4/- per hundred lbs. to make or 5/6 for 138 lbs. of meal. The total cost therefore of 138 lbs. of meal was 15/- which at 2d. per lb. wholesale is equal to 18/8 per cwt. The total value of the meal made from 915 lbs. of green bananas was 23/. This shows a very handsome profit especially as the bananas were almost unsaleable at this time.

We understand that this banana meal is being used to make bread and cakes by a baker, mixed with wheat flour, and that both the cakes and the bread are appreciated by the public, who can get a larger loaf for 1½d. or 3d. and certainly a no less nutritious loaf.

All those who are using wheat flour in their households should try to use banana meal mixed with the wheat flour—a little experimenting will give the maximum amount of banana meal that may be used with the wheat flour for bread making. Half and half up to three of banana meal to five of wheat flour we are told makes a good loaf. At any rate we know that banana meal makes excellent ginger cakes.

It is all nonsense for people to say that if they use green bananas and ripe bananas in the house they do not want to use banana meal as they would have too much of it. Do not they use wheat flour in bread, in biscuits, in cakes, in puddings, in dumplings, etc., and yet there is no grumbling about using too much of wheat flour ?

It is no use grumbling at the high cost of living and taxes, and all the rest of it, if the food that we boast so much of, viz: bananas, is not used as far as possible.

A simple plain cake or scone can be made of 8 ozs. of banana meal to 1 teaspoonful of baking powder, the banana meal to be used instead of wheat flour and the usual ingredients for a cake to be added.

—:o:—

## CO-OPERATION.

Owing to the low price of most of our products just now, many of the members of our Branch Societies are asking how they can get better prices for their cocoa, coffee, etc., and we are receiving letters asking us how we don't do this and how we don't do that to help to secure better markets.

We repeat that the low price of some products are due to the War, and that as a Society we cannot influence markets abroad in the slightest.

What we can do now is to try again to get co-operation in marketing produce put into effect,

There is plenty of talk about co-operation, but little attempt by those who talk to get it put into effect. Talk is good enough to arouse interest on a subject, but this talk has gone on for years. Then when an attempt is made to start in practice there are so many theorists who fly too high, want to do big things all at once, and when they are restrained a little and we point out the pitfalls and dangers, we are apt to be told that we are throwing cold water on good patriotic schemes. We have, however, seen too many of the great schemes come to grief all because the difficulties were not properly realized and met by properly organized business methods. And as these schemes have been sometimes run in connection with local Agricultural Societies, or at any rate the same members—practically, the further result is a defunct Branch, and a spell of years before any interest in our work can be renewed. The Agricultural Society is blamed for failure, co-operation suffers in principle and practice from badly organised schemes not gone into first cautiously and conservatively on a small scale.

The marketing of produce co-operatively is simple and effective, yet we are not aware of much of it being done yet. The first step to co-operation is organization: that we have got; the members of our Branch Societies have this matter in their own hands to go a step further and market their coffee, cocoa and even their bananas and corn in bulk, graded and marked and certified, and so be able to make their own bargains with merchants. It is a pity to see individuals next door to each other, one going one way and the other another way with samples, each wasting a day or several days perhaps trying to get a 6d. per 100 more from different individuals. Perhaps in one month 10 or 20 men from one small locality, waste 10 or 20 days going bargaining to sell coffee or cocoa, which all could have been done by one man in a few hours, who could probably with his samples of a No. 1 or 2 coffee or cocoa get for a ton or half a ton 2/- or 3/- per cwt. more than each individual could get for his cwt. Shipping abroad direct should not be attempted. In our stage of trade the middle man who ships abroad usually has his uses; he is the man who studies markets, supplies capital, speculates on rises and falls and takes risks. No little scheme of local co-operation in marketing cocoa at the beginning can afford to take such risks.

The plain weakness of co-operative schemes here is that men will not realize that it is the first duty of the individual to do his best and not to leave all efforts to the other man. Each must take interest in learning all he can about the business, in taking every care with his lot of produce.

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## SEASONABLE HINTS.

The best and most general planting season of the year is between March 15th and April 15th. Practically every crop grows well and bears well if planted at that time. It is the chief corn planting time, except in the hottest lowlands where the fall crop grows better. It is the best time to plant peas and beans of all kinds and large crops of these should be put in. In the quickest growing districts it is a good time to plant cane and in the slow growing districts for small settlers cane can be planted to give a continuation crop in the July—15 months after. It is a good time for budding oranges and grape fruit. It is the time to plant a summer crop of vegetables in the garden. All kinds thrive in the hills; in the lowlands such as cabbages, turnips, carrots, and Irish Potatoes will not mature well in the heat of ummer.

ROSELLE.—This handsome plant often called out of Jamaica, "Jamaica Sorrel" but here usually called as above, is being utterly neglected here, and is not now seen commonly in districts where it was once often seen in gardens. Yet from it is made a most delicious, refreshing, and healthful preparation. No garden should be without Roselle. We know some districts where there is plenty of it growing, and from which we could possibly get seed.

The Roselle has a habit of growth like the Okra. The stem of the plant is crimson red and the leaves are tinged with red. A fine flavoured sauce can be made from it, also Jelly and Wine. It can be used for flavouring cakes and puddings.

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PEANUTS.—*Jamaica imports small qualities of Peanuts which are sold in the* shops or markets. Peanuts are easily grown here in any sandy loam soil. Some of those who have young Bananas on light alluvial soil might try a crop of Peanuts between the rows, instead of Cowpeas. Some money might be made from the Peanuts where a plough is used and a machine planter to drop the seed.

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GREEN DRESSINGS.—Our readers who grow bananas should remember to plant a cover crop between their young bananas and should refer to past JOURNALS for full particulars as to the different crops suitable for green dressings they may plant. We may remind them shortly—although a full description of each crop has appeared in past JOURNALS—that if they want a cover crop for a short period, say 5 months they should plant Cowpeas; for stiff clay soil, and if they do not want the cover crop too dense, they should plant Overlook Beans: these have very powerful roots and go deep down; if they want to cover the land from April right to the end of the year and secure a thick dense cover which will, after the first 2 or 3 months growth, keep down all weeds and give probably 3 or 4 times as much weight of green stuff to add to the soil as Cowpeas and Overlook Beans, they should grow Jerusalem Peas. These latter begin to grow rather slowly but soon spread and only one row should be planted betwaen each of bananas if these are 12 feet apart. Jerusalem Peas only blossom about October no matter when planted.

In throwing up bananas to re-plant the land next year, or throw out for a longer period, plant a row or two of Bengal Beans or Velvet Beans, which make such vigorous growth that they will climb over all the old bananas in 3 or 4 months, providing an immense amount of feeding for beasts, crushing out bad weeds that would otherwise grow, and adding a large store of nitrogen to the soil.

We have plenty of these in stock—Jerusalem Peas, Cowpeas, Overlook Beans and Bengal Beans.

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SEASONS.—We have had excellent seasons since last October in nearly all districts. A few odd districts have been too dry or rather wet, but generally seasons have been nearly ideal—shower and sunshine. Whether this will continue no one knows, but we can only hope so. We would rather have good seasons and low prices, than poor seasons and high prices.

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## STOCK NOTES.

MARES FROM THE SEAT OF WAR.—It is very satisfactory to learn that careful arrangements have been made so that there shall be as little waste of breeding material as possible amongst the mares that have been sent to the front. There has been a lot said in some places about taking mares for Army purposes at all when the troops were first mobilised. That many good mares were sent to the seat of war is undoubted, but it is difficult to see, in the emergency, how this could have been avoided. The waste of horses in war is immense.

The loss is estimated at 3 per cent. in six months, so that by the end of January we see the wastage reached a formidable total; and, of course, a very considerable number of the mares will have gone out altogether—more perhaps, than of geldings, for in many of regular cavalry with which I am acquainted, more mares than geldings are to be found. But the Board of Agriculture wisely has made a great effort to get back for us those mares which may not be able to bear any more strain at the seat of war, and which are likely to make brood mares.

There is no doubt that a good few mares can be saved in this way.—*Farm Field & Fireside.*

HORSES.—The United States Government has standing for service, in various localities for the purpose of improving the horse stock in general and for making available a supply of suitable remounts for the army, a total of 41 stallions consisting of 9 Saddle Stallions, 10 Standard bred, 15 Thorough-breds and 7 Morgans. The last named is an old farmer's breed, formerly bred and used much in the New England States, noted for its great endurance and for all round road work for which it had no equal, and which great efforts have been made of late years to revive. It had almost been bred out by the fad for the Thorough-bred (Race Horse), but the whole idea of breeding horses is now on saner lines, Stallions of the different types suitable for certain work, being placed in districts considered suitable for such types.

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HORSES.—The term ringbone is somewhat vague, and is applied to many enlargements about the coronary or pastern joints or bones, and no less than four different forms are classified, depending upon their position and their causes. Amongst the latter one may enumerate blows, bruises, hereditary predisposition, badly-shaped joints, sprains, unequal paring of the hoof and unskilful shoeing, etc.

The early stage of ringbone is very difficult to diagnose. The disease may commence in the articular cartilages, in the synovial membranes, the periosteum, or the lateral ligaments. When exostoses are formed and they involve the action of the joint, a cure is not to be expected.

In most cases of ringbone the early stages are characterised by heat around the parts and lameness; the later stages by anchylosis, revealed by the difficulty in performing the usual joint movements. Nevertheless, a ringbone not involving joint action when fully formed may exist without lameness, provided also that the enlargement does not interfere with the action of tendons.

PREVENTATIVE TREATMENT.

The hoof should be so prepared that the weight is distributed evenly over the lower joints. The toe and the heels require special attention also, and a plain shoe without calkins. Although ringbones may occur on the hind feet, they are not so likely to cause lameness, but the shoeing remarks apply equally in their case.

Treatment to be effectual, must commence by giving rest—a month or more is necessary—and when tenderness and heat exists applications must be applied, at intervals, from fetlock downwards, on some soft, absorbent material like house flannel, secured in position by a broad bandage.

In the early stages warm applications are best, such as strong solution of Goulard's extract, 1 oz.; methylated belladonna liniment, 1 oz.; water to eight ounces.

Two tablespoonfuls of this should be mixed with a pint of warm water, the swabs soaked in it, and over all some water-proof material, intermitting every six hours or so, depending upon absence of pain and tenderness. Then a lotion consisting of chloride of ammonium 1 oz., vinegar 2 oz., methylated spirit 2 oz., water three pints, may be applied on the swab without the waterproof, intermitting as above. In about three weeks' time this treatment should have checked the trouble from extending and also stopped the lameness.

Iodine treatment consists of rubbing in around the coronary or bone affected twice a week simple iodine ointment, and once a week painting same with tincture of iodine.

Blisters are not recommended. The iodine treatment is preferable. In some cases where this treatment fails, needle firing with the zoocautery has a good effect; but this, of course, is an operation requiring a veterinary surgeon.

During the treatment a loose-box littered with sawdust or moss litter is to be preferred, taking care the feet are picked out and the litter not allowed to get wet.

During the swab application, the horse must be secured on the pillar reins.

Feeding must be restricted to hay, two feeds of oats, and crushed roots a few, when in season. Also give once daily in drinking water one dram of each of nitrate and chlorate of potash.—*Farm Field and Fireside* (England.)

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BLACK LEG is a common disease here among cattle. Frequently vaccinating with Blacklegoids is simple, inexpensive and effective as has been proved by many prominent breeders of cattle. These Blacklegoids can be had from our advertisers at 6/6 per box.

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MARES NOT BREEDING.—We have had a good many letters stating that mares take service repeatedly and yet do not prove in foal; yet are apparently stinted, but come in season again. Every man who has mares or cows should possess a syringe to hold a quart. When he knows the mare or cow is troublesome to hold after service, he should syringe the vagina of the animal before service, first with two quarts of luke-warm water in which has been dissolved a quarter of a teaspoonful of Permanganate of Potash. This will cleanse and disinfect the animal. Next day he should repeat the syringing with the same quantitiy of water, but this time with one tablespoonful of Bi-carbonate of Soda dissolved in it. Do not be afraid the animal will burst with two quarts of water inside: even four quarts could be easily held. Whether all the water is expelled soon again from the vagina or is absorbed through the bladder and passed later does not matter.

By this process we have had two mares breed that had been sent repeatedly over several years to Stallions and never proved in foal.

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FOOT AND MOUTH CAMPAIGN IN U.S.A.—President Wilson in January signed a bill carrying a Federal appropriation of $2,500,000 to pay stockmen for the losses occasioned in stamping out the disease, and thus a great forward step was taken. Admittedly one of the strongest grounds for opposition to the slaughter of cattle has been the remuneration which the farmers received. "Scraps of paper" could not carry the weight in an argument that the available funds will easily have. The U.S.A. Government has already mailed vouchers to pay for its half of the indemnities. In the State of Illinois this amounts to something like $600,000.

FOOT AND MOUTH DISEASE.—Foot and mouth disease is an ancient scourge of cattle. It is not fatal, but it is often so crippling that the afflicted animal has to be killed. It is virulently contagious.

The disease usually starts with a blister in the hoof. The animal licks this, thus conveying the infection to the mouth, where it works

so virulently that it often causes the tongue to drop off. In such case the animal dies of starvation.

Hogs are subject to the disease, and it may infect human beings Chickens, pigeons and other farm animals carry it. It has made its longest jumps by being carried on the shoes of farmers from infected areas.

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PIGS.—Now that the corn crop has come in, a good many of the small badly shaped cobs can be flung to the pigs. Sometimes this new corn causes digestive trouble, because no care has been taken to dry it. In all cases it would do far more good to the pigs, and no possible harm, if it were partly charred first, as a little charcoal is good for pigs. Indeed no cobs after being shelled should be flung away. These should be made into charcoal or ash and kept in a tin or barrel, and a small portion placed in the pigs' food every day. The cobs can be placed in a heap and reduced to charcoal or ash—those most severely burned will be ash and those less severely burned will be charcoal.

The following is a way of making charcoal.

If a hole is dug 2 or 3 feet deep and as large in diameter as desired, say 5 feet, and a grating made of gas pipes, old buggy axles, shafting or any available metal rods, is placed 8 inches above the bottom of the pit, the rails or posts may be piled on this in a conical pile and so arranged as to direct the draft up through the centre. The pile may then be covered with straw 2 to 4 inches thick except for a circular opening about 1 inch in diameter at the top. The dirt should then be shoveled on top of the straw so as to keep out the air from the sides. Then build a fire below the grating and allow it to burn until the pie inside is well ablaze, then cover the opening at the top of the pile with wet straw and dirt to exclude the air. What ashes result may be taken out, mixed with an equal bulk of salt and fed to the hogs. Even though the wood may not be charred through the sticks if put in the hog lot will be worked at by the hogs until the charred portion has been entirely removed. If the wood is dry it may be successfully made into charcoal in this manner."--Illinois Experiment Station.

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GOATS.—We were asked some time ago what to do for a trouble called "Staggers". The symptoms were that the goat staggers about blindly, turns round about in short circles (like a dog chasing its tail), and after a little may get better and go about as if nothing had happened for a time, and then act in the same erratic fashion again. Some fall down and die.

This trouble may be due to "Worms on the Brain" caused by the larvae of the Gad Fly which often attacks sheep. This is a kind of bot that enters the head of sheep and goats by the nostrils and finally lodges in the head.

But "Staggers" may also be due to a violent attack of indigestion, fermentation of gas in the stomach caused in different ways, one being by heavy feed of young green grass or it may be due to the eating of some poisonous weed or fungi..

In the case of fermentation a dose of 2 tablespoonsful of Epsom Salts, 1 dessertspoonful of Bicarbonate of Soda and a teaspoonful of powdered Ginger, all dissolved in a half pint of warm water and given to the goat from a narrow necked bottle carefully, will relieve quickly. But the greatest care has to be taken.

In the case of poison a dose of Castor Oil, 4 tablespoonsful to a full grown goat and a teaspoonful of a safe disinfectant (*not* a Tick Wash containing Arsenic) will also do good.

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MEDICINE FOR STOCK.—We sometimes hear of very extraordinary concoctions being used as medicine for stock, which one would think ordinary intelligence would indicate must cause if not permanent harm, at least a good deal of suffering *en route* from the mouth and especially there. Some medicines must of course cause a good deal of discomfort such as those used as purgatives but there are some used which must cause more than discomfort, must cause extreme pain, and certainly do lasting harm to some of the delicate membranes inside.

The other day we heard of a man who gave his horse raw Jeyes—put a tablespoonful on the poor beast's tongue—and this product, so useful if rightly used is one of those things often misused, by being used at great strength externally and internally. A *teaspoonful* to a quart of water is a fair strength for a wash for wounds or sensitive parts or a dose, and double that strength, i.e., at the rate of a teaspoonful to a pint of water is strong enough if used in water externally or internally in ordinary cases. When given in oil it can be given strong without harming but the very strongest we would care to use is a dessertspoonful to a pint of sweet or castor oil. There are exceptional circumstances where externally it may be used almost full strength—such as to kill "white fly."

Another "remedy" we heard of as being given was made by steeping a pint of bird peppers in a quart of water then bruising them draining of the water and using for a drench for colic in horses. This was used without being mixed with any covering or diluting agent except water. Now pepper or ginger or mustard are valuable remedies in certain digestive derangements and particularly colic, but they must not be used in such strength that they burn or paralyse the tongue and mouth and throat of the poor animal. Now-a-days there is little excuse for lack of knowledge of what to use in ordinary cases of trouble in Stock.

One of the most common causes of deaths in mules (horses and cows also) is a drench; for not only is the drench composed like the above but the lower jaw is held tight, the poor animal cannot swallow, and some of the drench goes "down the wrong way" causing congestion of the lungs.

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## POULTRY NOTES.

PRESERVING EGGS.—Eggs are very plentiful during the Spring months of the year. They begin to get scarce about June, as so many of the common hens, so commonly kept in the country, and many of the breeds which go broody, are then broody or sitting on eggs. It is a good thing to put up eggs now in a preservative and use them in June or July and those laid in those months can be kept for use in October to December, when eggs are very scarce.

We used Waterglass (Silicate of Soda, as got from the Chemist) last year and put up 4 dozen eggs in a kerosene tin in the month of June. We put up the same number in the month of July. These were used at Christmas. They were perfectly good for all purposes except boiling, the shells having become a little thin.

In the absence of Waterglass, which is not always in stock in the Chemists' shops, in Kingston, when wanted, Lime water acts almost as well. The following recipe is effective:

Take 1 lb. of good Lime, as freshly burned as possible; if the Lime is a little oldish take double the quantity. Put it in a bucket, or tub, or earthenware jar, pour enough hot water on the Lime to saturate it and then stir it into 5 gallons of water. Let it stand for a few hours with an occasional stir. Then pour off the water, which is now Milk of Lime, and pour it over the eggs. The receptacle, whatever it is, requires to be covered as the air acts on the Lime and may precipitate it. A little Sweet Oil put on the water will help to keep the air out. If however, after a time the water is seen to be getting clear, which means that the Lime is being precipitated, a fresh quantity of Lime water should replace the first quantity. It does not matter if the Lime water is made too strong, but the above quantity is effective.

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"WORMS IN THE EYE."—We receive questions dealing with troubles arising in poultry which we have dealt with over and over in this JOURNAL. "Worm in the Eye" however has not been dealt with because it has been a very rare trouble. Little worms are found to infest the eye. A few drops of Kerosene Oil mixed with an equal quantity of fine sweet Oil (Olive Oil for preference, but Coconut Oil or Cotton Seed Oil will do) poured into the fowl's eye, keeping the bird's head bent to the side so that the Oil will stay in for 30 seconds or so, will kill the worms. This must be repeated several times. The Kerosene Oil will not harm the eye.

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CORN.—The new crop of Corn is in and there will be the usual tendency to feed plenty of it from rejected cobs before it is properly dry. We have always found it useful to dry the small deformed cobs with scattered grains, in an oven (or Patent Drier where there is one) even to giving the grains a charring—not burning them, of course. Charred corn is an excellent food for fowls, and horses as well.

Everybody should have a Corn Mill so that Corn to be fed to fowls or horses can be cracked. The charred corn can be cracked in the same way.

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GUINEA CORN is plentiful in a few districts for the first time for a long number of years.

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March and April are the months the principal hatches should be made. Watch not to feed the young chickens on soiled ground or on the same ground repeatedly. Shift about.

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WEIGHT OF EGGS.—It is of great importance for the success of poultry keeping to be able to produce chickens that are constitutionally strong. It is asserted in this bulletin that the proposition that large, heavy eggs should be used for incubating purposes may be accepted as an established fact, so that it becomes a matter of importance to know when the heaviest eggs are laid and how fowls should be fed and handled in order that they may lay large heavy eggs. The experiments were carried out from 1911 to obtain some information on these points.

The average weight of eggs was four
month, reaching the maximum in the ea

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were heaviest and laying most freely. Eggs from White Leghorns did not reach their maximum weight until the hens were at least in their third laying season.—*West Virginia University Agric. Expt. Sta., Bull.* 145.

[We have hardly ever bred from pullets ourselves, having found from long experience that to avoid degeneration and to keep up hardiness and size and fecundity, chickens hatched from hens of the second year onwards are best, and these lay larger and heavier eggs than pullets. Any particularly remarkable hen should be kept as long as she remains vigorous and will lay and her eggs be hatched for one's own stock birds. Selection in this way can produce hardy, large birds, and which are good layers also.—ED.]

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## HOUSEHOLD HINTS.

When Irish potatoes are inclined to turn black in cooking add a few drops of Vinegar to the water in which they are being boiled. This will make the potatoes beautifully white and mealy.

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When boiling Rice add a little lemon or lime juice to the water. This makes the Rice white and also separates the grains.

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To prevent Honey becoming sugary, keep tightly covered and always in a dark place.

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When water is got from springs or rivers it is usually very hard owing to the limestone formation, and in a short time the kettle in which the water is being boiled gets a coat of limestone. To prevent this put a stone or marble in the kettle. This will prevent furring. The same should be done in cooking Custards, Porridge, etc. A large marble obviates, to a great extent, the necessity of stirring these things while cooking.

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When Jelly will not set, add the juice of a lemon or lime, or some white Vinegar.

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In making Cakes or Puddings always do the stirring with a wooden spoon. This is much better than doing it with an ordinary metal spoon or knife.

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HONEY *will be plentiful and cheap. From it can be made a very refreshing* and palatable beverage called "Mead"—one of the oldest drinks in history. Boil 14lb. of honey in six gallons of water for half an hour, breaking into it three or four new laid eggs. Then add small bunches of flavouring from the garden, balm, thyme, etc., ½ oz. each of cinnamon, cloves, mace, and bruised ginger, and boil a quarter of an hour longer. Pour it out to cool, then toast a very large slice of bread of any kind, spread it over with fresh yeast, and put it into the liquor; let it ferment for a day, then put in the cask, but keep it open until the fermentation is complete. It may be bottled in a month, and the corks must be securely tied.—*Farm Field and Fireside*, 25.9.14.

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TOMATO CATSUP.—Tomatoes are now in and the following can be made from the small ones, that are usually very common. Tomato Catsup is useful on the table when there are no tomatoes: Take one bushel of tomatoes, and boil them until they are soft. Squeeze them through a fine wire sieve, and add ½ gallon of vinegar, 1½ pint of salt, 2oz. of cloves, ¼lb. of allspice, 3oz. of cayenne pepper, three tablespoonfuls of black pepper, five heads of garlic, skinned and separated. Failing the garlic, three times the quantity of "Scallion" heads will pass. Mix together, and boil about three hours, or until reduced to about one-half. Then bottle, without straining.

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USEFUL HINTS.—A bag of salt standing where there is a smell of fish will absorb it.

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A slice of lemon, lime, or tomato rubbed over the hands will remove ink stains.

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Nails, dipped first in lard or castor oil can be driven into hard wood without bending.

To prevent coloured stockings from fading, put a tablespoonful of black pepper into the water in which they are rinsed.

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To make a good lotion for the face and hands, grate a fresh cocoanut and put it in a cloth and squeeze out the milk. Wash the face every evening in this milk and rub the skin briskly for a few moments, then wipe with a soft flannel cloth.

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There are wonderful possibilities in a dish of cooked rice. Try cutting up a few banana figs in a rice pudding in place of raisins. The flavour is delicious.

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BOILED MILK.—An infant fed entirely on boiled milk is liable to scurvy, which reveals itself by the formation of fleshy lumps on the gums or by eruption on the head. The disease arises from the anti-scorbutic properties of milk being destroyed by heat, but as unboiled milk is not a safe diet for infants, means must be adopted to prevent this disease, which, if neglected, may prove fatal. Two or three times a week the infant should have a tablespoonful of sweetened orange, or grape fruit juice, or grape juice, or a teaspoonful of very finely-mashed, floury potato should be added to the bottle of milk.—*Farm Life.*

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CABBAGE SALAD.—A quick and delicious salad is made by slicing the cabbage very fine on a slaw cutter, and adding a dressing of equal parts prepared mustard and sweetened whipped cream.—*The Rural New Yorker.*

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TOMATOES AND RICE.—Boil a breakfast cupful of rice as if intended for curry, and when cooked, strain it thoroughly dry and mix it well with some tomatoes. Add a little onion or scallion chopped very fine and a little butter. Season with pepper and salt to taste. Put the rice and tomatoes in a pie dish, which must be well buttered and covered with breadcrumbs (cassava bread is quite as good as white bread), and strew a few little pieces of butter over the top, then bake in an oven till of a rich golden colour.

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MOULDY JAM JARS.—A not unfrequent cause for jam becoming mouldy is that the jars in which it is kept are sometimes not perfectly dry when the jam is put into them. The jam-pots put away from last year will necessarily be dusty, and require washing. Have jars washed in hot water the day before they are used, and, after drying with a cloth, have them put down in trayfuls, in the sun, to do away with the possibility of damp.

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CHOKING.—Serious cases of choking are not uncommon, and it is seldom that people know what to do in such cases, in the absence of a skilled physician; yet relief may be surely and quickly obtained by pouring the white of an egg (raw) down the sufferer's throat. This remedy never fails because the egg will slip down the throat and render the obstruction so smooth that it will readily pass on down. This remedy is just as effective for animals as for human beings. To administer the dose to an animal, however, is not always easy. The correct way is to place the white of the eggs in a bottle, raise the animal's head, thrust the bottle well back and empty.

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WHEN Poison has been accidentally swallowed no emetic is better than mustard. Mix three teaspoonfuls with a cup of warm water and swallow. At once the stimulative action upon the stomach causes that organ to reject all its contents, the poisonous ingredients with the rest. The emetic of mustard leaves no ill effect behind it, but instead a feeling of pleasant warmth and stimulus. It is one of the quickest of all emetics and the most harmless.

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## COMMENTS.

WAR FUND.—The Agricultural Society's War Fund contributed to by the Branch Societies, will now be closed. The latest subscription is from the Bamboo Branch in St. Ann, one guinea. The total is now £154 18s. 11d.

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AUTHORIZED PERSONS.—Each Branch Society should keep strict supervision over the "Authorized Persons" connected with their Branch, and they should not fail to let the General Secretary know

of any changes, i.e., if an "Authorized Person" dies, or one goes abroad, he should be advised so that the Police Department can be advised also.

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HONEY.—The increased cost of sugar should also benefit the trade in honey but probably not to such an extent as might at first be supposed. Sugar—that is sugar of commerce—is a necessity; honey is a luxury; yet every sweetening agency that is pure should follow sugar in price, though not comparatively. At any rate, apiaries should have increased and careful attention to make the most of them.

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LARGE CORN YIELDS.—In the boys' corn-growing contest in east Tennessee, conducted by the "Knoxvile Tribune," yields were secured ranging from 84.12 bushels up to 117 bushels of moisture-free corn. The weight of the corn when gathered runs fron 128.78 to 134.43 bushels. The largest yield was secured by Vincent Hamilton on red upland soil during a year of exceeding drought.

*The Breeders' Gazette.*

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COCONUTS.—We have received from a Coconut plantation on the Pacific side of Central America some seed nuts which are very round, and on opening them we found the husk to be very thin and the nuts inside very round. We have sent some out as samples and we have set out some to sprout here. We are told, too, that they are rapid growers and we think that this is quite likely as some of them had already started to sprout on the journey.

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POTATOES.—We have imported this season 300 barrels of seed potatoes. These were all inspected here, except the last lot which was in haste to be sent out as they were late arriving and those touched with rot, or scab or by the machine in lifting were sorted out and only first class potatoes re-packed. Here is one of our acknowledgements:—

"Potatoes arrived safely and in excellent order. They are what I consider A 1 plants, and it won't be the fault of the plants if I don't get an A 1 crop."

———:o:———

SOY BEANS.—The Soy Bean is a Japanese Bean; we have written about it several times in the JOURNAL. It is the most nutritious Bean of all—rich in protein and oil. There are large exports of this Bean from Japan, Manchuria and China, to the United Kingdom where the oil is expressed and the remainder used for a cattle food. The Soy Bean, however, as it is grown is a most nutritious human food and if we can grow it successfully it will be a valuable addition to our legumes. It is now largely being grown in the Southern United States. We can send sample packets at 3d., if any one wishes to try it.

———:o:———

MOONSHINE.—A good many people in a good many countries have fads about the moon in connection with agriculture. They will only do this and that when the moon is full or when there is no moon. But there is no definite information on record as to the results of doing this and that when the moon shines at night against doing this and that when the nights are dark; and we are inclined to think that the idea that the moon has any particular influence on our agricultural practices is all "moonshine." If those who hold beliefs to the contrary will write us their experiences it will be a subject worth discussing.

CUT WORMS AND CATERPILLARS, which destroy the young corn as it springs, can be prevented from causing loss, by poisoning them. The danger in laying poison is that domestic stock and such wild birds as Nightingales may be poisoned also. This also can be prevented. Get plenty of small bamboo pots ready. Then mix 1 part Paris Green (which contains Arsenic) with 20 parts of Corn Meal or Banana Meal with some thick sugar syrup or the familiar "wet sugar" to make a stiff dough. Place balls of this in the bamboo pots and set the pots all through the corn just at planting. Mice or rats which eat out the corn grains as they germinate, will also be poisoned.

———:o:———

NORTH DAKOTA'S PRIZE CORN-ACRES.—In a Boys' Acre Yield corn Contest conducted by the North Dakota Experiment Station the highest yield was 98.8 bushels. This entitles the union to the first prize of $75 for the southern section as well as the grand prize of $100 for the best acre of corn in the state. The next best yield was 76.4 bushels, which entitles the minor to the first prize for the northern section. Nearly 700 boys entered the contest. The average yield of the 16 prize-winners in the southern section was 70.6 bushels and the average of the 15 prize-winners in the northern section 62.3 bushels. The state average is 28 bushels and the average for the United States is 25.8 bushels.—*The Breeders' Gazette.*

———:o:———

KEEPING CORN.—We hope before long to be able to send out Napthalene for keeping Corn in small tins, very cheaply. One difficulty has been to get at this time, tins cheap enough to bring Naphthalene within the reach of the poorest man. We hope to be able to send out small enough tins containing a quantity that will do for a barrel (say 3 bushels) of Corn. A flour barrel is a common receptacle for keeping Corn; at any rate it is a convenient measure just as a kerosene box is a convenient measure for a full bushel. All that will require to be done we hope is to punch three or four holes in the tin, and drop it in the bottom of the barrel and fill in the Corn. Or get a bamboo pipe and put it in the middle of the barrel and fill in the corn a and then drop the tin of Naphthalene in. This we hope will save trouble measuring out small quantities and putting it in a cloth.

———:o:———

GUINEA CORN.—We are glad to note that Guinea Corn has been fairly well raised throughout the Island last season, far more than in any year in our recollection, but yet nothing like in the old times we hear about. We have written very freely on the subject of Guinea Corn, and yet we receive queries which show that the nature of the White Jamaica Guinea Corn is not yet understood. No matter when planted it will only bear about the January following, so that if planted in March or April it occupies the land a long time, but where green forage is wanted the stalks can be cut down in July for feed; the ratoons will spring immediately and a good crop of grain will accrue in January all the same. But where the seed only is wanted, planting in August is time enough. The Red Guinea Corn on the other hand, as we have so often explained, will bear any time within four months. Unfortunately seed of this variety is scarce and we have sent out nearly all we had. We expected to get a fairly large quantity in stock but were disappointed.

TICKS.—The greatest pest we have in Jamaica is the Cattle Tick, which infests our pastures. Where it exists in quantities it depreciates the value of the land as it is a great drawback to the stock in the pastures. Attacks of ticks on young stock depletes their vitality, causes them to be slow of growth and, in many cases, to be anaemic The same applies to older stock. In addition tick-infested pastures are banned places to the households of those who own them, who might otherwise enjoy pleasant strolls. Instead, they are debarred from venturing into these pastures at all, and often do not even know the property on which they live. As for our tourists who, undeterred by tales of ticks, venture into some of these pastures, they go away with tales of horror.

Persistent effort should be kept up to keep cattle clean of ticks and there is no lack of cheap material for washes and sprays. We advertise some.

———:o:———

COPRA.—Owing to the low prices of Coconuts at present, and the effects of the long drought of last year in some districts, causing the nuts to come small there, copra is being commonly made this year. In order that this product may keep well it should be thoroughly dried. We are told that some small settlers think that it is good to keep the kernels whole and they take some pains to chip off the shell so as to do this. This is time and trouble badly spent, for though the small nuts may have no milk in them, they cannot dry properly unless they are cut open. Such small nuts should be halved and then placed in the sun, concave side up. When the meat is dried it separates from the shell itself and saves the trouble of scooping it out when the nut is freshly opened.

A better Copra, however, is made by splitting the coconuts open and scooping the kernels out in three or four pieces, according to size. These dry more quickly and more thoroughly.

———:o:———

CORN.—"In the early part of September I put away 15 bushels of Corn in 5 barrels. I sunned the corn for one day. In the bottom of the barrel I put a Tobacco tin with Naphthalene (Crystals). I perforated the tin. I am using the corn after 4½ months; it kept quite free of weevils except for one inch at the bottom. The Naphthalene started to rise directly it left the tin, so that the corn at the very bottom did not get any of the fumes, except just around the tin.

I would suggest that the Naphthalene be spread lightly over the bottom of the barrel and covered with a piece of muslin and the corn thrown on to that."

THOS. POWELL.

Hibernia, Mile Gully,
30/1/15.

[A bamboo pipe put through the corn (joints punched out of course) with a few crystals of Naphthalene put in will keep the corn at the bottom easily and safely. The pipe should be put in when the corn is put in. A fresh supply of Naphthalene can be dropped down the pipe at any time. Thus a little at a time can be used.—ED.]

———:o:———

CASSAVA.—There was a short article in the last JOURNAL on some varieties of cassava. We find in some districts that only very late varieties are grown such as cannot be used before eighteen and

twenty months of growth. A common variety of this kind is "Cotton Tree." Now at this stage (18 months growth) a late variety ought to give a very large return to be worth the time it takes to mature and the space of land it occupies during that time..

Every district ought to have quick growing varieties as well as late varieties. There are first class varieties that can be used within nine months, others in twelve months. These should be largely introduced into districts where they are not grown at present. School Gardens are a good medium to introduce these varieties into a district, and in the School Gardens they can first be tested to see how they take to the district. Sometimes a variety of cassava or sweet potato, new to a district where the plants find quite different conditions, do not grow well for the first crop, because they are not acclimated, so no one should form an opinion on the first test. Plants taken from those grown in any locality and grown again would show fairly how the variety would result in the district.

———:o:———

DRYERS.—There are many growers of cocoa, coffee and coconuts who have not enough of each product at one time to justify their getting an ordinary large dryer such as a good many larger growers and buyers have now in use. Now too that coconuts are low in price, and so many are turning their attention to copra (dried coconut), and now that normal seasons seem to be returning so that there has been a good deal more rain from October to the end of February than we have had since 1906, there is a good deal of enquiry for a dryer to cost between £50 and £100, and which would do for cocoa, or coffee or copra. If a dryer is suitable for cocoa or coffee, which requires very delicate treatment, such a dryer will also be suitable for drying coconut, corn and almost any other thing that needs drying (except the family washing). Such dryers are made and we have a Catalogue before us at present. We quoted them in page 429 October JOURNAL. There is a small dryer with a capacity of 500 lbs. (wet product) costing £48 for hand power, and there is a larger size with a capacity of 1600 lbs. (wet product) costing £72 for power, when one beast would be enough. Larger sizes are made with a capacity of from 21 to 252 cwt. of coffee and cocoa.

The local Dryers made for Banana Figs should be useful also for drying Copra.

———:o:———

DISEASES OF BANANAS.—Our bananas in Jamaica have been so long immune from disease that now that we have some diseases creeping in it is hard to get people to believe that they need to alter their methods to meet the possiblity of serious trouble coming in.

One of the chief causes of illness among human beings and live stock, is the lack of sanitation and hygiene, and the same conditions will invite diseases among plants.

Along the roads where bananas are growing—and as bad as anywhere in the premier banana growing parish, St. Mary—are to be seen in small settlers cultiuations and in large plantations too, dead banana trees, cut stumps of different heights, rotting away, old butts lying as they have fallen, and other signs of carelessness and indifference that are as dangerous to bananas as the bodies of dead animals would be to human beings if they were left lying about in a city street. Very few growers of bananas ever take

out the useless old heads of trees but the foul smelling stumps are left to rot away. These should be dug out and a handful of lime flung in. What a grower could allow in his bananas four years ago with impunity, he should realise he cannot let alone now. Look out for trouble if these ways are allowed to continue.

———:o:———

TORONTO EXHIBITION.—We regret that, owing to the necessity of conserving the finances of the Colony at the present time, the Government has not been able to make a grant for Jamaica to be represented at the Toronto Exhibition this year.

* * * * *

*West Indian Permanent Exhibits in Canada.—*

A permanent West Indian Exhibit has been opened in Toronto, which, it is contemplated, will be extended to Montreal, Winnipeg, and other Canadian cities.

This scheme of Permanent Exhibits is an attempt to supplement the good work of the Toronto Exhibition by providing one or more centres, where West Indian products are shown and offered for sale, and where enquiries may be made and answered with regard to business in West Indian products.

The promoters state that the exhibit forms a retail depot where we can get in touch with the actual buyers, and sell to them direct. The location is in the heart of the city, and we have a fine up-to-date establishment with a large electric sign, etc. The whole exhibit is considered a great credit to the British West Indies in every war. We shall sell only the best of produce, and the prices, of course, must be low enough to sell satisfactorily.

The great drawback of the exhibit at the Toronto Exhibition has been the fact that there has been no one to follow up the enquiries and we hope to fill the deficiency.

The success of the Jamaica exhibit at Toronto for the past few years, and the enquiries that have been made for the products of that colony, seem to have led to the establishment of the Permanent Exhibit, and at the present time the goods on hand are largelyfrom Jamaica. It may however be well for the Exhibition Committees of all the British West Indies and British Guiana to get into touch with this enterprise, as affording a means of establishing a closer relationship between producer and consumer in the matter of tropical produce in the northern markets.

Additional information may be obtained from Mr. Lewis W. Clemens, West India Permanent Exhibits, 71 King Street West, Toronto, Canada.—*The Agricultural News*, 30/1/15.

———:o:———

CORN.—We have been greatly pleased through letters from correspondents and our observations while travelling to note the large quantity of corn that has been raised and is being raised now. Planting began in August where good seasons prevailed, but a good many districts had to wait until October for seasons, so that we shall be getting corn coming in right on to May.

Then the quality of the corn has been very much improved. We saw some corn bought in the ordinary way for horse feeding in a district, without being selected in any way, and there was hardly any little round bullets of corn such as are generally seen; the grains were all as good as the imported product. The large proprietors too

have been taking great interest in corn growing and have grown large fields so that we feel sure that our large imports of corn must be cut down. Then again in districts we have travelled in, we have not seen more preparations to plant corn and more corn being planted since the year 1906. People seem to have confidence that our good seasons have returned. We do hope that this will be so. The demand for selected seed corn is very gratifying. While we send out fairly large quantities those who have got seed from us in years past and have been inspired by our articles in the JOURNAL, have raised such good corn themselves, that there are many distributing centres throughout the Island. We are glad of this. We know of planters who have sold from 10 to 20 bushels for seed all having been taken from selected cobs. We have sent out some 40 bushels ourselves, and if we had got our stock in early enough could have sent out larger quantities.

We are watching the corn growing industry very closely, as while there has been great improvement, we require to watch that we do not breed our corn too fine. We are having tests made between ordinary red corn, a direct cross between red and yellow, and an almost pure yellow corn carefully selected for seed; all under the same conditions.

A correspondent writes us as follows:—

"Seed corn obtained from you will give double the crop of the native corn planted beside it at same time."

———:o:———

SEED CORN.—We have been asking for Reports of results from those who received Seed Corn last year. We began to issue Seed Corn the last week of July last, and continued to the end of October. Drought prevailed in St. Mary and St. Ann until October, and a good many did not plant until that month. We should like, however, to get results in bushels from quarts planted, but very few people seem to keep accounts and notes of results of their corn-growing.

———

"I have to report that the seed corn purchased from you last September has proved most satisfactory. It was planted during the months of September and October and germinated finely. The land had been thoroughly prepared and corn grew rapidly and we began to get roasting ears by the 15th of December. I fed to my stock all inferior plants during the growing stage. The crop harvested has shown a large proportion of well filled ears of fine large kernels, and I am disposing of much of it as seed corn.

I found the earliest planting and the Southern hill side exposure has given best results. I cannot give net results in bushels as so much was consumed in the green stage, but I am satisfied that careful selection of seed planted on well prepared soil pays handsomely."

H. B. W.

———:o:———

CORN.—"I have just taken in corn from my School Garden, and there are some fine seeds, which are in great demand by parties desiring to plant.

A dressing of your "Slug Shot" saved the crop from Caterpillars."

W. F. JONES,

Woburn Lawn, Hagley Gap.

[In this way the School Gardens are beginning to form distributing centres for good seed. In the same way varieties of Sweet Potatoes and Cassava, new to some district but known to be the best in other districts, may be tested locally against those usually grown, and if they give better results, can be introduced. This has been done and is being done, but we commend it to be done generally.—ED.]

:o:

BANANA MEAL.—We ought to be able to do a good business during war times in banana figs, as these form a concentrated, palatable, digestible and very nutritious food. What a nice present for soldiers in the trenches a packet of banana figs would be!

Dried banana chips are still being exported from here; they are ground into meal in London, as better grinding and sieving facilities was got there, and banana flour is now being used as a food in the French Base Hospitals.

We feel that this Island is losing great opportunities—especially when its market for bananas in the ordinary form is likely to be depressed—in not putting forth some combined effort to get our fruit put in the market in the form of banana figs and banana chips.

:o:

## WAR GIFTS.

We shipped by the s.s. "Chagres" on the 8th February, the following as War Gifts for the wounded soldiers in the military hospitals in the United Kingdon and France, and also to the sailors in the North Sea Fleet.

We have been a little disappointed in the quantity of Preserves supplied to us for this purpose, but Guavas were out of season and we had to fall back on Grape Fruit Marmalade which is a novelty abroad and likely to be very much appreciated. We should like to make another shipment entirely for the sailors in the North Sea Fleet, but it would require to be a substantial one as the crews on some of the ships number 1,000 men. We have done pretty well in shipping fruit to our wounded soldiers, but we have not done much yet as regards our sailors stationed in the North Sea, who are enabling us to live in peace and security in Jamaica and to receive and send shipments safely.

To send preserves in Jars is very expensive. and after all. the quantity each contains is a mere trifle. We think therefore to send Guava Jelly, which if made stiff keeps and travels well, in tins of say 10 lbs. weight—such tins costing less than one jar containing 1½ to 2 lbs.

When the season for Guavas comes around there are enormous quantities available and we think large quantities of Jelly ought to be made by those who have the skill and opportunity. In this way those who are far away from the fighting centre, can be doing something.

| | | Boxes of. Oranges. | Grape Fruit. |
|---|---|---|---|
| J. H. McPhail, "Tulloch, Bog Walk, | Free Gift | 34 | |
| The Hartlands Co., Ltd., Hartlands | ,, | .. | 12 |
| H. C. Bennet, "Tarentum," Spanish Tn. | ,, | .. | 25 |
| Robt. Craig, "Danks-Savoy" Chapelton | ,, | 18 | 3 |
| Hon. Geo. McGrath, "Charlemont", Ewarton | ,, | 12 | 12 |
| Sir Jno. Pringle "Cape Clear" Clonmel | ,, | .. | 25 |

The shooks and wrapping paper were supplied for the following, the fruit. labour and road transport, being a gift:—

| | | |
|---|---|---|
| Per J. H. McPhail, Bog walk:— | | |
| Estate J. C. Lecesne, Bog Walk | | 40 |
| Robt. Lindo, Linstead | .. | 26 |
| Jno. T. Baylis, "Berkshire Hall" Linstead | .. | 6 |
| R. A. March, Linstead | .. | 10 |
| P. A. Moodie (Jnr.), Riversdale | 1 | 2 |
| Miss Anna Crossley, "Kendal Lodge" Buff Bay | .. | 4 |
| Anthony Benn, "Mt. Holstein" Spring Hill | 6 | .. |
| Mrs. Hudson, "Lloyd's Estate" Guanaboa Vale | .. | 50 |
| Hon. J. R. Williams, "Kew Park" Bethel Town | .. | 12 |
| H. E. Crum Ewing, "Knockpatrick", Mandeville 2 lemons | 2 | 6 |
| Mrs. W. W. Wynne, "Brokenhurst" Mandeville | 19 | 6 |
| Capt. Alex. Bonitto "Battersea" ,, | 25 | .. |
| H. A. Jacobs ,, | 10 | 10 |
| F. S. Sturridge ,, | 17 | .. |
| Mrs. R. A. Manton, "Berwick" ,, | 20 | 10 |
| A. M. Lewis ,, | 31 | 8 |
| E. W. Muirhead ,, | 56 | .. |
| E. E. Calame, Mocho | 1 | |
| A. A. Green ,, | 1 | 5 |
| Spaldings Branch, Clarendon | 38 | 12 |
| Per S. A. Hendricks, Porus:— | | |
| D. D. Phillips, 5 oranges, 2 grape fruit; Hall & Smith, 2 oranges; Thos. Cole, 1 orange; Henry Murray, 1 orange; S. A. Hendriks, 19 oranges; B. McKenzie, 1 grapefruit; A. S. Rose, 2 grape fruit | 28 | 5 |
| Per W. J. McCausland, Balaclava:— Dr. W. O. R. Lofthouse; G. Hendricks; Maidstone Branch; Per Comfort Hall Branch:— Mrs. Mary Ann McLeish, Joseph Thompson, Miss Jane Prayagg, Wm. Isaacs, Jas. Saunders, Sam. Hendricks, Chas. Horton, Uriah Hibbert, Jas. E. Williams Jas. Nash, Mrs. Susan Hendricks, C. McLeish, Alf. Powell, Mrs. Cath. Freckleton Jas. Newman, W. E. McLeish, D. S. Williams, R. A. Munroe | 10 | 14 |
| Per Thos. Powell, Mile Gully:— Mrs. Lucy Carnegie, 5 boxes grape fruit; Wm. Myrie, 3 boxes grape fruit; Alfred Harriott, 1½ boxes grape fruit; Jos. Lattrie, 2 boxes grape fruit; Thos. Powell, 5½ boxes grape fruit; Jos. Lattrie, 1 box oranges; Isaac Boucher, 1 box oranges; Alex. Boucher, 1 box oranges | 3 | 17 |

| | | |
|---|---|---|
| Mrs. H. E. Bolton, Gordon Town | 8 | 2 |
| Mrs. T. D. McNee, "Mt. Olivet" Walderston | 1 | .. |
| Total No. of boxes 2 lemons | 341 | 312 |

*Ginger Sugar.*—

| | |
|---|---|
| Mrs. T. D. McNee, "Mt. Olivet" Walderston | 1 box |
| Dr. E. V. Halliday, Christiana | 2 boxes |
| | 3 boxes |

*Preserves.*—

| | |
|---|---|
| Mrs. W. W. Wynne, "Brokenhurst" Mandeville | 20 lbs. |
| Mrs. H. E. Crum Ewing " | 24 " |
| Mrs. H. W. Griffiths " | 18 " |
| Mrs. Harry Cork, "Parkmount" Port Antonio | 24 " |
| Miss Phyllis Cork, "Barbican" Liguanea | 18 " |
| Eustace Hall, The Hall Mark Preserves Co., Kingston | 28 " |
| Miss Sylvia DaCosta (Money collected £3 12/- to be spent on War Gifts—Guava Jelly) | 140 " |
| Total Weight | 272 " |

*Banana Figs.*—

J. O. Mason, Orange Bay, 5 boxes containing 500 lbs.

*Banana Meal.*—

Lionel Hawthorn, "Guilsbro", Latium (not yet shipped) 1 bag of 272 lbs.

:o:

## WAR GIFTS.

The following are some of the acknowledgements of our supplies of Oranges and Grape Fruit which were sent on by this Society and distributed throught the West India Committee in London.

We published a list of the generous donors in the December JOURNAL. The fruit acknowledged here was our second shipment sent off by the s.s. "Aracataca" on November 22nd, which arrived just in time to be distributed before Christmas, the total being 959 packages. These acknowledgements will no doubt be of interest to those who provided the fruit. We publish only a few of these, beginning from the South of England and going right up through England to the North of Scotland.. We also include some acknowledgements from Wales and Ireland.

It will be seen that the fruit arrived for the most part in excellent condition. Among the 275 acknowledgements which we received in all, there were only two complaints—in one case the fruit was damaged, and in the other the fruit (which went to Dingwall in the North of Scotland) was frosted. ED.

*Empress Eugenie Hospital, Farnborough Hill, Farnboro', Hants.*—

Lady Young wishes to thank you a thousand times for the beautiful present of grapefruits and oranges which are much appreciated by the wounded officers here.

Lady Young has informed H.I. Majesty the Empress Eugenie, who, would like her thanks expressed to the Jamaica Agricultural Society.

*The Princess Club Hospital, 106 Jamaica Road, Bermondsey, London, S.E.*—

President:—H.H. Princess MARIE LOUISE of Schleswig-Holstein.

Her Highness, Princess Marie Louise of Schleswig-Holstein wishes me to convey

to you her most grateful thanks for the present of oranges and grapefruit sent by the Jamaica Agricultural Society to the sick and wounded soldiers at this Hospital. The fruit arrived in good condition and was very much appreciated by the soldiers at their Xmas dinner.

Will you kindly let the Jamaica Agricultural Society know this when you are writing.

(Sgd.) CHARLOTTE W. CLEPHAN,
Matron.

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*Royal Naval Hospital, Haslar, Gosport, (England).*—

With reference to your letter of 18th December, I beg to inform you that the 6 boxes of oranges and grapefruit duly arrived on the 5th inst.

The fruit was in very good condition, and is being much appreciated by the patients able to participate in their distribution. Kindly convey most sincere thanks on their behalf to the Jamaica Agricultural Society, and to your Committee.

(Sgd.) J. JOHNNS,
Surgeon-General, R.N.

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*Cambridge Hospital, Aldershot.*—

I beg to acknowledge receipt on 24th inst. of 13 boxes of fruit presented by the Jamaica Agricultural Society, to the sick and wounded under treatment in this hospital.

The consignment arrived in good condition and was much appreciated, and I shall be glad if an expression of my thanks may be forwarded to the Society for their very acceptable present

(Sgd.) H. L. G. CHEVERS, R.A.M.
Major.

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*Bristol Royal Infirmary, Bristol.*

President:—Sir GEORGE WHITE, Bt.

Do please convey to the Jamaica Agricultural Society our most grateful thanks for their splendid and welcome gift of 10 boxes of Oranges and 2 boxes of Lemons which are particularly appreciated just now.

With very many thanks for all your kindness and the season's compliments.

(Sgd.) W. E. BUDGETT.

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*St. Thomas's Hospital, London, S.E.*—

Matron desires me to thank you very much indeed for the most kind gift of oranges and grapefruit received from the Jamaica Agricultural Society which has arrived in excellent condition, and will be so much appreciated by our wounded soldiers here. It is so kind of the Society to think of such an appreciable gift.

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*London Hospital, Whitechapel, London E.*—

It is with great pleasure that I write to thank you and the members of your Society for the generous and splendid gift of 1 dozen cases of oranges which you have so kindly sent for the enjoyment of the wounded soldiers under our care in this Hospital.

They so deeply appreciate your thought of them from so far across the seas, and they have welcomed this Christmas present in the spirit of goodwill in which it has been sent.

Altogether we have had the privilege of caring for over fourteen hundred of these brave men since the war began, and about 100 will be spending Christmas with us, which we hope to make as quietly happy as is possible this season with the war overshadowing all, as it must inevitably do.

With sincere good wishes for the New Year, and once again with warmest thanks for your gift.

(Sgd.) EVA C. E. LUCKES,
Matron.

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*First London General Hospital, Camberwell.*—

Thank you so very much for your promise of 2 boxes of grape fruit, 10 boxes of oranges and one box of mixed fruit from the Jamaica Agricultural Society. I am certain they will be greatly appreciated, and the kind thought from friends so far away will I know add to their value immensely.

We are most grateful for we are doing our best for our wounded soldiers this Christmas to make it happy, and the help and thoughtful kindness of our good friends, far and near, are making it possible. Would you kindly thank the Jamaica Agricultural Society most heartily from us.

(Sgd.) M. ACTON, Matron.

*Highfield Red Cross Hospital, Worcestershire.*
Quartermaster:—Lady GEORGINA VERNON.
I am writing to express the grateful thanks of myself and the soldiers in this Hospital for the generous and welcome gift of grapefruit and oranges from the Jamaica Agricultural Society. The grapefruit were a special treat as they had not had any before, and also they arrived in such perfect condition.

(Sgd.) GEORGINA VERNON.

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*Victoria Infirmary, Northwich, Cheshire.*—
Will you kindly convey to the Jamaica Agricultural Society our grateful thanks for their very generous gift of Oranges and Grapefruit; they are much appreciated. I am quite sure, could the donors see the enjoyment and pleasure the soldiers have shown, they would feel amply repaid for their kind thought.

(Sgd.) A. E. KUBLE,
Matron.

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*Norfolk and Norwich Hospital, Norwich.*—
I am desired by the Board of Management of this Hospital to acknowledge with grateful thanks the receipt of your Committee's kind gift of 10 cases of oranges from the Jamaica Agricultural Society, for the wounded soldiers in this Hospital. They arrived in excellent condition and were very greatly appreciated by the 150 patients in the Hospital.

(Sgd.) FRANK G. HAZETT,
Secretary.

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*The Lady Forester Hospital, Much Wenlock, Shropshire.*—
We received this morning the box of oranges, sent from the Jamaica Agricultural Society. The oranges are very choice and in splendid condition. The soldiers will enjoy and appreciate them very much, and send their warm thanks to you and the Jamaica Society.

(Sgd.) M. SMITH,
Matron.

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*General Hospital, Nottingham.*—
I beg to acknowledge with very many thanks the receipt of 4 boxes of Oranges and 2 of grape fruit, which arrived just before Christmas and in good condition.
The wounded soldiers so very much enjoyed the former gift from the Jamaica Agricultural Society and very much appreciated the splendid quality of the fruit. They are equally enjoying the present consignment, they also very much appreciate the kindness of the Jamaica Agricultural Society in so kindly thinking of them.

(Sgd.) GERTRUDE KNIGHT,
Matron.

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*Red Cross Hospital, Wainfleet, Lincolnshire.*—
It was most kind of you to send us another case of your lovely oranges. I waited to write thinking another batch of wounded would have arrived, but owing to the East coast raids they have not sent us any cases for the last two or three weeks.
There are about 26 wounded Belgians in a Hospital near here (Spilsby) so I am giving oranges to them and to our own 15 Belgian refugees who are so grateful for them. Two of them have been ill and the oranges have been a real boon. I am keeping the firmest on a shelf hoping they will keep till we get more patients. I also have given a few of the oranges to the children of soldiers and sailors on foreign service. Once more our most hearty thanks to your kind Committee.

(Sgd.) EDITH P. TINDALL,
Matron.

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*The Military Hospital, York.*—
I am deeply grateful to the Jamaica Agricultural Society for their present of 3 boxes of oranges and 1 box of grapefruit for the sick and wounded.
The fruit is excellent, it arrived in very good condition. I know the patients will greatly appreciate it.

(Sgd.) A. B. CAMERON,
Matron.

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*Wykeham Abbey, Wykeham, Yorkshire.*—
The two boxes of oranges and one of grapefruit, sent by the Jamaica Agricultural Society for the sick and wounded in this hospital, arrived safely last week.

The fruit is in excellent condition, and the soldiers have enjoyed them most thoroughly and are still doing so. On their behalf I send most grateful thanks to the Jamaica Agricultural Society.

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*First Northern General Hospital, Armstrong College Hospital, Newcastle-On-Tyne.*—
I beg to thank you for the gift of 10 cases of oranges and 2 boxes of grape fruit which arrived in good condition on Saturday. It is a most acceptable gift and much appreciated by our soldiers and sailors. You will be interested to hear that we received another 170 members of the Expeditionary Force yesterday, so they also came in for some of your gift; I shall be much obliged if you will convey our hearty thanks to the Jamaica Agricultural Society for this gift.

(Sgd.) GRACE A. PRESTON,
Matron.

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*Howard Gardens School, Headquarters, Cardiff.*—
On behalf of the Commanding Officer I beg to acknowledge with grateful thanks receipt of the consignment of 10 boxes of oranges and 2 boxes of grapefruit and 1 box of mixed fruit which the Jamaica Agricultural Society have been so kind as to supply for the wounded soldiers of our Hospital and which I am sure will be much appreciated by them.

(Sgd.) EWEN J. MACLEAN,
M.D., Major, Registrar & Adjutant.

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*Military Hospital, Fermoy, Ireland.*—
Many thanks for the gift of fruit to hand. Will you kindly convey to the Jamaica Agricultural Society the best thanks of the sick and wounded of the Expeditionary Force at this Hospital for the generous gift which I assure you is highly appreciated.

(Sgd.) I. F. Brodie,
Lt.-Col., R.A.M.C.

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*King George V. Hospital, Dublin.*
I am writing to thank you very much for the splendid present of oranges and Grapefruit from the Jamaica Agricultural Society. The fruit arrived in excellent condition and will be thoroughly enjoyed and appreciated by the wounded soldiers here.

Thanking you again.

(Sgd.) M. WALKER,
Act. Matron.

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The Managers of the Royal Infirmary of Edinburgh return their best thanks to the Jamaica Agricultural Society per the West India Committee, London, for the kind gift of 5 boxes oranges and 1 box grape fruit for the use of the soldier and sailor patients under their charge.

The fruit will be distributed to our sick and wounded who are very grateful to our West Indian friends in Jamaica.

(Sgd.) R. MCKENZIE JOHNSTON, F.R.C.S.,
Superintendent.

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*Second Scottish General Hospital, Craighead, Edinburgh.*—
The Matron desires to thank the Jamaica Agricultural Society very much indeed for the delightful present of oranges and grapefruit which they have been good enough to send to this hospital for the wounded and which is much appreciated.

*Hospital Gifts Committee, 2 Alford Place, Aberdeen.*—
On behalf of the above Committee I wish to send warmest thanks to the Jamaica Agricultural Society for their most generous and beautiful gift of fruit to the wounded soldiers in Aberdeen.

The 13 cases came yesterday in good time for the Christmas dinner. The "First Scottish General Hospital" fills four Hospitals in Aberdeen and each one had plenty of fruit thanks to their most kind gift. The tables looked quite beautiful with the dishes of fruit in amongst all the plum puddings and especial sweets.

We shall be greatly obliged if you will convey our heartfelt thanks to the Jamaica Agricultural Society for so generous a gift.

(Sgd.) HELENA BAILLIE,
Chairman of Hospital Gifts Committee.

*Ross Memorial Hospital, Dingwall.*—

Would you kindly thank the Jamaica Agricultural Society for the box of oranges received yesterday, in good condition. The patients enjoy them very much and wish to add their thanks.

(Sgn.) pro A. CROSS,
A. MACKINTOSH.

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## BRANCH NOTES.

SCOTTS HALL (St. Mary.)—The meeting was held in the schoolroom on Wednesday, 3rd February, at 5 p.m. Present were: Rev. J. Gordon Hay, J.P., in the Chair; W. Cradwick, Esq., Agricultural Instructor; Messrs. E. A. Gunter, Assistant Instructor, and about 28 other members. Prior to the beginning of the meeting, the Instructor and his Assistant gave a practical lesson in "Plant Surgery." A seemingly healthy cocoa tree near the schoolroom was treated. It was surprising to see the extent to which the tree was affected inside. The ready manner in which affected spots were pointed out and treated showed that Mr. Cradwick is an authority on the subject. After the opening preliminaries of the meeting were gone through, the Chairman welcomed the Instructors and expressed the pleasure it was to have them both at the meeting. The minutes were read and confirmed. Matters arising out of the minutes were left over for next meeting. The Chairman then called on Mr. Cradwick to address the members. The Instructor said he was glad to be present. His inability to be present regularly was a source of deep regret to him. He was willing to come but it was the bad luck of the society as all previous arrangements fell through from one cause or another. He is anxious to get into the district as he has something practical to teach. He then gave a very interesting lecture on the pruning of cocoa, calling special attention in the course of it to the demonstration he had just carried out. This made the address more interesting. Continuing he dealt extensively and very interestingly with the Prize Holding Scheme and encouraged the members to begin at once and enter. All were deeply interested. The Chairman thanked him for the fine address and especially for his remarks on the Prize Holding Scheme, which was made more plain and interesting to the members. Mr. Gunter next spoke corroborating all that was already said on cocoa pruning and telling of his meeting with Mr. Cradwick and the experience and success he has achieved on his small holding since. He spoke of Mr. Cradwick's high worth and the success he has achieved in cocoa-pruning in Jamaica, and finally encouraged all to follow the instruction that had been given. The Secretary next spoke thanking the Instructor for the demonstration of the evening and promising to follow it up and as long as he is in the district to see that others follow. He was determined to watch the result keenly and to always call the members attention to the result, which he was certain would soon be seen. Mr. Campbell spoke expressing his gratitude for what he had seen and heard that evening, and promised to enter for the Prize Holding Competition. The meeting was brought to a close by the singing of the National Anthem. G. O. HANSON, Secretary.

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LUCKY HILL (St. Mary.)—The regular monthly meeting was held in the Goshen Schoolroom on Wednesday, 17th instant with the President, Mr. H. Jefferson, in the chair. The day was a wet one, but there was a fair turn out of members. The Secretary read letters from the Instructor, Mr. Cradwick, *re* his absence from the last meeting, and his proposed visit to the district on the 23rd instant. The members felt that the reason given by the Instructor was not sufficient to justify his absence from the January meeting, in view of its importance, especially to the competitors in the Prize Holding Competition. It was the general feeling that the Branch is very much neglected by the Instructor, and the following resolution was adopted:—"That this branch of the Jamaica Agricultural Society expresses its entire dissatisfaction at the lack of interest manifested, and neglect it receives at the hands of the Agricultural Instructor, Mr. Cradwick, and points out the following facts:—"(1) That this branch is the oldest in the Bagnolds district. "(2) That it had in the past held these successful shows. "(3) That it has only been visited once during the last fifteen months by the Instructor. "(4) That no demonstrations of any consequence for the benefit of the members have ever been carried out. "(5) That owing to the fact that the Instructor pays so little attention to the branch, there is a lack of interest and enthusiasm on the part of many of the members. "(6) That a copy of this resolution be sent to the Instructor and to the press. A paper on the cultivation of yams was read by Mr. F. W. Geoghagan, and a hearty discussion on the subject followed. Mr. Geoghagan was accorded the thanks of the meeting. Mr. Eugene Spence was appointed to give a paper on cocoa-growing at the next meeting. W. B. CUMMINGS, Secretary.